FAM-Phe-CMK SDS; Doc# F17-6146-3-C; Effective: 05/26/2017; Supersedes: F17-6146-3-B; Page 1 of 6



SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

Section 1: Identification of the substance/mixture and of the				
1.1	Product identifier:		FAM-Phe-CM	<
1.1a	Other means of identification	n:		
1.1b	Alternative produ	ct name(s)/ synonyms:	FAM-Phe-CMK. FF	CK, FLISP; a carboxyfluorescein derivative of a
				d chloromethyl ketone.
1.1c	Product number/	Catalog #(s):	6146, 6239	· · · · · · / · · · ·
1.1d	Internal identifica			CK; FLISP; a carboxyfluorescein derivative of a
				d chloromethyl ketone
1.2	Relevant identified uses of mixture and uses advised			nly. Not for use in diagnostic procedures.
1.2a	Brief description of what the intended to do:		Enzyme inhibitor ar	nd serine protease detection reagent.
.3	Details of the supplier of	the SDS:		
.з .3а	Name:	life 3D3.	ImmunaChamiatru	Technologies, LLC (ICT)
.3b	Address:		9401 James Avenu	
.30 .3c	City, State, Zip, C	ountry	Bloomington, MN 5	
.30 .3d	Phone number:	Journaly	1-800-829-3194 an	
.3u .3e	Find Find Fax number:		952-888-8988	0 002-000-0700
	Website:		www.immunochem	istry com
.3i .3g	Email:		help@immunocher	
1.3y 1.3h	Contact person a		Quality Documenta	
1.3n 1.4	Emergency telephone nu			04 (USA & Canada) or 952-888-8788 world wide;
	Emergency telephone nu			h-5 pm central time USA, Monday through Friday
). Chemtrec 24-hour access within USA and
			Canada: 1-800-424	I-9300 or +1 703-527-3887. Collect calls accepted
Sectio	n 2: Hazards identification			
2.1	Classification of the subs	tance or mixture:		
2.1a	Product is a:		Substance.	
2.1b	Classification according to	(EC) No. 1272/2008	Does not meet the	criteria for classification.
	{CLP}:			
2.1c	The most important advers		Refer to Sections 9	-12.
	health, and environmental	effects:		
2.2	Label elements:		None.	
2.2a	GHS label elements, includ	ing precautionary	None.	
	statements:			
2.2b	Contains:		None.	
2.2c	Labeling in accordance with		None.	
2.2d	Hazard Pictograms (Hazard	ל Symbols):	None.	
2.2e	Signal word:		None.	
2.2f	Hazard statements:		None.	
2.2g	Precautionary statements:		None.	
2.2h	Supplementary precaution	statements:	None.	
2.3	Other hazards:		No additional inform	nation available.
2.3a	Does the chemical meet the		Not applicable.	
2.3b	Other hazards which do no	t result in classification:	No information ava	ilable.
	n D. Commentities II. (ion on home lient		
	n 3: Composition/informat	on on ingredients		
3.1	Substance:		Item is a substance).
	3.1a Chemical identity:		FAM-Phe-CMK	
	3.1b Common name, synor	iyms, etc.:	None.	
	3.1c CAS number and		<u>3.1e %</u>	3.1f Classification according to (EC) No.
	other unique identifiers:	3.1d EC number:	Concentration:	<u>1272/2008 {CLP}:</u>
	None.	None.	100%	Not classified.
10	Chamical identity of any im	purity stabilizing additive	Nono known	
3.1g	Chemical identity of any im		None known.	
	or individual constituent oth constituent, which is itself or			
	constituent, which is itself of			
		IION (SUCH as PIODUCE		
		ification numbers)		
2 16	identifier, trade name, ident		None	
3.1h			None.	

Sectio	on 4: First aid measures	
4.1	Description of first aid measures:	If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
4.1a	Inhalation:	Due to the small packaging the risk of inhalation is minimal. Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water.
4.1b	Skin contact:	Get medical attention if any discomfort continues. Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated
4.1c	Eye contact:	clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.Promptly wash eyes with plenty of water while lifting the eyelids. Make
		sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medica attention if any discomfort continues.
4.2	Most important symptoms and effects, both acute and delayed:	•
4.2a	Inhalation:	May cause coughing or mild irritation.
4.2b	Skin contact:	Prolonged skin contact may cause mild irritation.
4.2c	Eye contact:	May cause temporary eye irritation.
4.2d	Ingestion:	May cause discomfort if swallowed.
4.3	Indication of any immediate medical attention and special treatment needed:	No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.
Sectio	on 5: Firefighting measures	
5.1	Extinguishing media:	Use fire-extinguishing media appropriate for the surrounding materials
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
5.1b 5.2	Unsuitable extinguishing media: Special hazards arising from the substance or mixture:	None known. Product is not explosive. No dangerous reactions known under norma conditions of use.
5.2a	Hazardous combustion products:	In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO2; COx). None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c 5.3	Protective measures in fire: Advice for firefighters:	Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other
		ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
•		
Section 6.1	on 6: Accidental release measures Personal precautions, protective equipment, and	Use protective equipment appropriate for surrounding materials.
	emergency procedures:	
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	 contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).

FAM-Phe-CMK SDS; Doc# F17-6146-3-C; Effective: 05/26/2017; Supersedes: F17-6146-3-B; Page 3 of 6

• •		tive: 05/26/2017; Supersedes: F17-6146-3-B; Page 3 of 6
6.2	Environmental precautions:	Do not allow to enter drains, sewers, or watercourses.
6.3	Methods and materials for containment and	Contain any spills with dikes or absorbent materials to prevent
	clean up:	migration and entry into sewers or water sources. Place in a suitable
		container for disposal in accordance with local waste regulations (see
		Section 13). Wash spill area thoroughly with plenty of soap and water.
6.4	Reference to other sections:	Avoid contact with skin or inhalation of spillage, dust, or vapour. Refer to Sections 8 and 13 for additional information.
6.4	Reference to other sections:	Refer to Sections 8 and 13 for additional information.
Sectio	n 7: Handling and storage	
7.1	Precautions for safe handling:	Do not handle until all safety precautions have been read and
		understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of
		vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate
		personal protection equipment (PPE). Thoroughly wash hands and
		contaminated areas with water and soap before leaving the work site.
		Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or	Avoid contact with strong acids and strong oxidizers.
	mixtures:	
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use.
		Remove contaminated clothing and protective equipment before
		entering eating areas. Good personal hygiene is necessary. Follow
7.2	Conditions for sofe storage, including any	good laboratory hygiene and safety practices.
1.2	Conditions for safe storage, including any	Refer to product label. Store in cool place. Keep container tightly
	incompatibilities:	closed in a dry and well-ventilated place. Containers which are opened
		must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	Specific end use(s):	For research use only. Not for use in diagnostic procedures.
7.5	Specific end use(s).	For research use only. Not for use in diagnostic procedures.
Sectio	n 8: Exposure controls/personal protection	
8.1	Control parameters:	
8.1a	Occupational exposure limits, such as chemical	Not available.
	identity, standard, TWA-8 hours (time weighted	
	average), STEL-15 minutes (short term exposure	
	limit), etc.: WEL = Workplace Exposure Limit. Sk =	
	can be absorbed through skin.	
8.1b	Appropriate engineering controls:	•
8.1c	Individual protection measures, such as personal	Wear gloves, protective goggles, and lab coat.
	protective equipment:	
8.1d	Safety symbols:	
8.2	Exposure controls:	
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the
		workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is
		reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate
		use a full-face respirator with multi-purpose combination (US) or type
		ABEK (EN 14387) respirator cartridges as a backup to engineering
		controls. If the respirator is the sole means of protection, use a full-face
		supplied air respirator. Use respirators and components tested and
		approved under appropriate government standards such as NIOSH
		(US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift
		and before eating, smoking, and using the toilet. Promptly remove any
		clothing that becomes contaminated. Use appropriate skin cream to
		prevent drying of skin. When using do not eat, drink, or smoke. Wash
		promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.21	Environmental exposure controls:	Not determined.

9.1	9: Physical and chemical properties Information on basic physical and chemical properties:	
9.1a	properties: Appearance (physical state, color, etc.):	Powder, dust.
9.1b	Odor:	No characteristic odor.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	Not determined.
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	Not determined.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not applicable
9.1i	Flammability (solid, gas):	Not determined.
9.1j	Upper/lower flammability or explosive limits:	Not determined.
9.1k	Vapor pressure:	Not applicable.
9.11	Vapor density (Air =1):	Not applicable.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Insoluble in water; soluble in organic solvents.
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
Section	10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Hazardous polymerization: no data available.
10.4	Conditions to avoid:	To avoid product degradation, avoid exposure to high temperatures o
		direct sunlight or light.
10.5	Incompatible materials:	No data available.
10.6	Hazardous decomposition products:	None under normal conditions.
• • • • • •	11: Toxicological information	
Section		
	Information on toxicological effects:	
11.1		FAM-Phe-CMK
11.1 11.1a	Information on toxicological effects: Name:	FAM-Phe-CMK Not determined.
11.1 11.1a 11.1b	Information on toxicological effects:	
11.1 11.1a 11.1b 11.1c	Information on toxicological effects: Name: Acute toxicity:	Not determined.
11.1 11.1a 11.1b 11.1c 11.1d	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation:	Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization:	Not determined. Not determined. Not determined. Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity:	Not determined. Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity:	Not determined. Not determined. Not determined. Not determined. Not determined. Not determined.
11.1a 11.1b 11.1c 11.1c 11.1d 11.1f 11.1g 11.1h	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity:	Not determined.
11.1a 11.1b 11.1c 11.1c 11.1d 11.1d 11.1f 11.1f 11.1f 11.1f 11.1j 11.1j 11.1j	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure:	Not determined.
11.1a 11.1b 11.1c 11.1d 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure:	Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1f 11.1f 11.1h 11.1i 11.1i 11.1j 11.1k	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard:	Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1f 11.1f 11.1h 11.1i 11.1i 11.1j 11.1k	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure	Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1f 11.1f 11.1h 11.1i 11.1i 11.1j 11.1k 11.1l	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):	Not determined. Nay enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1k 11.1h	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1k 11.1h	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1f 11.1f 11.1f 11.1k 11.1k 11.1k 11.1k 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1k 11.1k 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Skin contact:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1d 11.1f 11.1g 11.1h 11.1j 11.1k 11.1k 11.1k 11.1n 11.1n 11.1n 11.1n 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:	Not determined. Nay enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1k 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1n	Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic	Not determined. Nay enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1f 11.1f <	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted.
11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1f	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1f	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Inhalation:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. Not gecific symptoms noted. Not determined. Not determined. Not determined. Not determined. Not determined.
11.1 11.1a 11.1b 11.1c 11.1d 11.1f 11.1g 11.1h 11.1f 11.1g 11.1h 11.1k 11.1k 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Inhalation:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data: Mixtures:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not determined. Not applicable. Not applicable.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1k 11.1m 11.1n 11.1n 11.1n 11.1c 11.1s 11.1t 11.1v 11.1v	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data:Mixtures:Mixture vs. substance information:	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not applicable. Not applicable. Not applicable. Not applicable.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1g 11.1f 11.1f 11.1f 11.1g 11.1h 11.1i 11.1k 11.1k 11.1k 11.1n 11.1x 11.1x 11.1x	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Inhalation:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data:Mixtures:Mixture vs. substance information:Classification by National Toxicity Program (NTP):	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not applicable. Not applicable. Not applicable. Not classified.
11.1 11.1a 11.1b 11.1c 11.1d 11.1d 11.1f 11.1k 11.1m 11.1n 11.1n 11.1n 11.1c 11.1s 11.1t 11.1v 11.1v	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Inhalation:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data:Mixtures:Mixtures:Mixture vs. substance information:Classification by National Toxicity Program (NTP):Classification by International Agency for Research	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not applicable. Not applicable. Not applicable. Not applicable.
11.1 11.1a 11.1b 11.1c 11.1d 11.1f 11.1g 11.1f 11.1g 11.1f 11.1g 11.1h 11.1f 11.1g 11.1h 11.1f 11.1g 11.1h 11.1c 11.1n 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n	Information on toxicological effects:Name:Acute toxicity:Skin corrosion/irritation:Serious eye damage/irritation:Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Information on the likely routes of exposure(inhalation, ingestion, skin and eye contact):Ingestion:Inhalation:Skin contact:Eye contact:Symptoms related to the physical, chemical and toxicological characteristics:Delayed and immediate effects as well as chronic effects from short and long term exposure:Numerical measures of toxicity (such as acute toxicity estimates):Interactive effects:Absence of specific data:Mixtures:Mixture vs. substance information:Classification by National Toxicity Program (NTP):	Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not applicable. Not applicable. Not applicable. Not classified.

Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	FAM-Phe-CMK.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Not determined.
12.2	Persistence and degradability:	There are no data on the degradability of this product.
12.3	Bioaccumulative potential:	No data available on bioaccumulation.
12.4	Mobility in soil:	No data available.
12.5	Results of PBT and vPvB assessment:	Not determined.
12.6	Other adverse effects:	No data available.
Castia	12. Dispessions	
<u>3ection</u> 13.1	n 13: Disposal considerations Waste treatment methods:	When handling waste consideration should be made to the seferty
13.1	waste treatment methods:	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on	Dispose of waste and residues in accordance with local authority
	their safe handling and methods of disposal,	requirements. For the safety of persons conducting disposal, recycling
	including the disposal of any contaminated	or reclamation activities, please refer to the information in Section 8
	packaging:	(exposure controls and personal protection) of the SDS.
0 1	44. T eres and information	
Section 14.1	n 14: Transport information UN number:	Natanniashla
14.1		Not applicable.
14.2	UN proper shipping name: Transport hazard class(es):	Not applicable.
14.3	Packing group:	
14.4	Environmental hazards:	Not applicable.
14.5a	Is it environmentally dangerous according to UN	No.
14.5a	Model Regulations (IMDG Code, ADR, RID, and ADN)?:	
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of MARPOL and the IBC code:	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
	n 15: Regulatory information	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture:	
15.1a	Regional safety, health and environmental	None known.
	regulations specific for the product in question:	
15.1b	USA SARA Components (such as 302/311/313):	Not listed.
15.1c	USA Massachusetts Right to Know:	Not listed.
15.1d	USA Pennsylvania Right to Know:	Not listed.
15.1e	USA New Jersey Right to Know:	Not listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 {REACH}:	
15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous
,		for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.11	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of
		substances and mixtures {CLP Regulation}. EC 830/2015. Regulation
		(EC) No 1907/2006 of the European Parliament and of the Council of
		18 December 2006 concerning the Registration, Evaluation,
		Authorisation and Restriction of Chemicals (REACH), establishing a
		European Chemicals Agency, amending Directive 1999/45/EC and
		repealing Council Regulation (EEC) No 793/93 and Commission
		Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC
		and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and
		2000/21/EC, including amendments.
15.2	Chemical safety assessment:	Not required.
15.2a	Other regulatory information:	None.
Section	n 16: Other information	
16.1	Other information:	
	Date of revision:	26-May-2017
16.1a		
<u>16.1a</u> 16.1b	SDS number and revision:	
		F17-6146-3-C F17-6146-3-B

FAM-Phe-CMK SDS; Doc# F17-6146-3-C; Effective: 05/26/2017; Supersedes: F17-6146-3-B; Page 6 of 6

16.1d	Change	es made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e		end to abbreviations and acronyms used in	ACGIH American Conference of Governmental Industrial Hygienists.
	the SD	S:	ADN European Provisions concerning the International Carriage of
			Dangerous Goods by Inland Waterway.
			ADR The European Agreement concerning the International Carriage
			of Dangerous Goods by Road.
			ATE Acute Toxicity Estimate.
			BCF Bio Concentration Factor.
			CAS Chemical Abstracts Service.
			CLP Classification, Labelling and Packaging.
			CMR Carcinogen, Mutagen or Reproductive toxicant.
			COD Chemical Oxygen Demand.
			EC European Commission.
			EC50 Half maximal effective concentration.
			EH40 Resource containing the list of workplace exposure limits for use
			with the Control of Substances Hazardous to Health Regulations.
			EINECS European Inventory of Existing Commercial chemical
			Substances.
			ELINCS European List of Notified Chemical Substances.
			EU European Union. GHS Globally Harmonized System of Classification and Labelling of
			Chemicals.
			H Statement GHS Hazard statement.
			IATA International Air Transport Association.
			IBC Intermediate Bulk Container.
			IC50 Half maximal inhibitory concentration.
			IMDG International Maritime Dangerous Goods.
			LC50 Median lethal concentration.
			LD50 Median lethal dose.
			LogPow logarithm of the octanol/water partition coefficient.
			MARPOL 73/78 International Convention for the Prevention of
			Pollution From Ships, 1973 as modified by the Protocol of 1978.
			OEL Occupational Exposure Limit.
			OSHA Occupational Safety and Health Administration (USA).
			PBT Persistent, Bioaccumulative, and Toxic.
			PEL Permissible Exposure Limit.
			RID The Regulations concerning the International Carriage of
			Dangerous Goods by Rail.
			SADT Self-Accelerating Decomposition Temperature.
			SARA Superfund Amendments and Reauthorization Act.
			SCBA Self-Contained Breathing Apparatus.
			SDS Safety Data Sheet.
			STOT Specific Target Organ Toxicity.
			STOT-RE Specific Target Organ Toxicity - Repeated Exposure.
			STOT-SE Specific Target Organ Toxicity - Repeated Exposure.
			UN United Nations.
			USA United States of America.
			vPvB very Persistent very bioaccumulative.
6.1f	Full toy	t of bazard statements and/or procedutionary	All statements were written out in full.
0.11		t of hazard statements and/or precautionary ents not written out in full elsewhere:	
DISCI /	AIMER:		ic material designated and may not be valid for such material used
			r in any process. Such information is, to the best of the company's
			le as of the date indicated. However, no warranty guarantee or
		niowieuge and benet, accurate and feliab	as of the date indicated. However, no waitanty guarantee of
		representation is made to its assurages as	
		representation is made to its accuracy, re himself as to the suitability of such inform	liability, or completeness. It is the user's responsibility to satisfy

END OF SDS

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 1 of 6

TECHNOLOGIES

SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

Sectio	on 1: Identification of the substance/mixture and of th	e company/undertaking
1.1	Product identifier:	10X Cellular Wash Buffer
1.1a	Other means of identification:	
1.1b	Alternative product name(s)/ synonyms:	10X CWB, CWB, Cellular Wash Buffer
1.1c	Product number/Catalog #(s):	6164, 6165
1.1d	Internal identification:	10X CWB, CWB, Cellular Wash Buffer
1.2	Relevant identified uses of the substance or mixture and uses advised against:	For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is	A buffered diluent for use in research laboratory techniques.
	intended to do:	
1.3	Details of the supplier of the SDS:	
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com help@immunochemistry.com
1.3g 1.3h	Email: Contact person at ICT:	Quality Documentation Department
1.3n	Emergency telephone number:	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide;
1.4	Emergency telephone number.	ICT hours are 9 am-5 pm central time USA, Monday through Friday
		(excluding holidays). Chemtrec 24-hour access within USA and
		Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.
•		
Section 2.1	n 2: Hazards identification Classification of the substance or mixture:	
2.1a	Product is a:	Mixture.
2.1a 2.1b	Classification according to (EC) No. 1272/2008	Does not meet the criteria for classification.
2.10	{CLP}:	
2.1c	The most important adverse physiochemical, human	Prolonged skin contact may cause redness and irritation. Refer to
	health, and environmental effects:	Sections 4, 9-12.
2.2	Label elements:	None.
2.2a	GHS label elements, including precautionary	
	statements:	
2.2b	Contains:	Contains ≤0.1% sodium azide.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	News
2.2d	Hazard Pictograms (Hazard Symbols): Signal word:	None.
2.2e 2.2f	Hazard statements:	None. None.
2.21 2.2g	Precautionary statements:	None.
2.2y 2.2h	Supplementary precaution statements:	None.
2.211	Other hazards:	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	Contains sodium azide (NaN ₃ , CAS #26628-22-8; EC #247-852-1) at
		\leq 0.1%, sodium chloride (NaCl, salt), and phosphates which are below
		the threshold for hazard classification, but may cause redness and
		irritation after prolonged exposure.
Sectio	n 3: Composition/information on ingradiants	
3.1	on 3: Composition/information on ingredients Substance:	Item is a mixture therefore Section 3.1 is not applicable; see Section
		3.2.
3.2	Mixture:	Item is a mixture.
	The chemical identity and concentration or	
	concentration ranges of all ingredients which are	
	hazardous and are present above their cut-off levels:	No is an director island from the set of the Original Con-
2.0.	3.2a Chemical identity:	No ingredients identified for reporting in this section.
3.2u	Other information on the mixture:	None.
Sectio	on 4: First aid measures	
4.1	Description of first aid measures:	If concerned, get medical attention/advice and provide physician with
	Description of first aid measures:	If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 2 of 6

4.1a Inhalation: Remove to fesh air and keep at test in a comfortable position for breaking, give artificial regimention. Rrive nose and meakh with water. Get medical attention if any discomfort conditiues. 4.1b Skin contact: Worthurd, Get medical attention if any discomfort conditiues. 4.1c Eye contact: Worthurd to on support list 15 minutes. Both medical attention if any discomfort continues. 4.1c Eye contact: Promptly wash eyes with plenty of water while lifting the eyels before results. Make support continues. 4.1d Ingestion: Promptly wash eyes with plenty of water while lifting the eyels before results. Make support continues. 4.1d Ingestion: Promptly wash eyes with plenty of water while lifting the eyels before results. 4.2d Most important symptoms and effects, both accut Continues to raise for all bassification. but may cause redness and mild initiation. 4.2d Indiation: May cause discomfort continues. 4.2d Indiation: May cause discomfort if swallowed. 4.2d Indiation: May cause infortant symptomes and effects, both accut 4.2d Indiation: May cause discomfort if swallowed. 4.2d Indiation: May cause infortant and maxes redness and mild initiation. 4.2d Indidiation: May cause discomfort if swallo		<u>10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; E</u>	ffective: 2017-05-19; Supersedes: F17-6164-2-C; Page 2 of 6
mouth with water. Get medical attention if any disconfort continues. 4.1b Skin contact: Wash skin thoroughly with scap and water for several minutes. Containnated coffing and shoes and wash thoroughly before reuse. Get medical attention if any disconfort continues. 4.1c Eye contact: Promoty disconfort continues. 4.1c Eye contact: Promoty disconfort continues. 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.2a Most important symptoms and effects, both acute Contains sodium azide, sodium. Out may cause redness and mild irritation. 4.2a Installor May cause coupling or mild irritation. 426 4.2a Installor May cause disconfort if washawed. 116 washawed. 4.2a Installor of any immediate medical attention and subsect. Nay cause disconfort if washawed. 4.2a Installor on a immediate medical attention if any disconfort on importion. 116 washawed. 4.2a Installor of any immediate medical attenti	4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for
mouth with water. Get medical attention if any disconfort continues. 4.1b Skin contact: Wash skin thoroughly with scap and water for several minutes. Containnated coffing and shoes and wash thoroughly before reuse. Get medical attention if any disconfort continues. 4.1c Eye contact: Promoty disconfort continues. 4.1c Eye contact: Promoty disconfort continues. 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.1d Ingestion: NEVER NAKE AN UNCONSCIOUS PERSON VOM TO DRINK 4.2a Most important symptoms and effects, both acute Contains sodium azide, sodium. Out may cause redness and mild irritation. 4.2a Installor May cause coupling or mild irritation. 426 4.2a Installor May cause disconfort if washawed. 116 washawed. 4.2a Installor of any immediate medical attention and subsect. Nay cause disconfort if washawed. 4.2a Installor on a immediate medical attention if any disconfort on importion. 116 washawed. 4.2a Installor of any immediate medical attenti			breathing. If not breathing, give artificial respiration. Rinse nose and
4.1b Skin contact: Wash skin throughly with scap and water for several munices; continue for rarse for at least 15 munutes. Remove any contaminated dothing and shoes and wash thoroughly before reuse. Get medical attention far y desormfor continues. 4.1c Eye contact: Promply wash eyes with plent/of water while lifting the eyeside. Make sure to remove any contaminated discortific for moles and contact lenses from thurles. Call medical attention f any desormfor continues. 4.1d Ingestion: NEVEX MAKE AN UNCONSCIOUS PERSON VOMIT OF DRINK ELUIDSI Rinse mouth thoroughly, Do not induce vomiting without advice from please, control centre or medical professional. Get medical attention f any desormfort continues. 4.2a Most important symptoms and effects, both acute and delayed: May cause coupling or mid intation. 4.2a Indiation: May cause coupling or mid intation. 4.2a Indiation: May cause coupling or mid intation. 4.2a Indiation: May cause coupling or mid intation. 4.2a Indiation of any immediate medical attention and properiod. May cause coupsort. 4.3 Indication of any immediate medical attention and properiod. May cause coupsort. 4.3 Indication of any immediate medical attention properiod. May cause coupsort. 4.3 Indication of any immediate medical attention and properiod. May cause coupsort. 5.4 <td></td> <td></td> <td></td>			
a. 10 continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thronghly before reuse. Cell medical attention if any disconfort continues. 4.10 Eye contact: Promptly wash yees with plenty of water while lifting the eyelds. Make sure to remove any contact lones its form the cyse before rinsing. Control to the control clother rinsing. Control to the control clother control of any disconfort continues. 4.11 Ingestion: PLEVER MAKE AN UNCONSCIOUS PERSON VOIT OR DRINK FLUUDS Rinse mount throughly. Do not induce vorniting without advice from poison control center or medical professional. Get medical attention if any disconfort continues. 4.22 Most important symptoms and effects, both actue and telayed: Contains sodium azide, sodium active, sodium active, and phashase which are beload setting or medi intalison. 4.23 Invalation: Invalation: May cause temporary eye intaliation. 4.24 Ingestion: May cause temporary eye intaliation. May cause disconfort if swallowed. 4.33 Indication of any immediate medical attention and hyo cause disconfort if swallowed. No specific first aid measures noted, but first aid may still be required in a day special trastant exposure. Interval symptomaticality. Refer to Sections 5-8 for advice on personal production or dusice. 5.14 Subtiable extinguishing media: The symptomatical the surrounding materials. 5.15 Unsubtiable extinguishing media:	4 1b	Skin contact:	
clothing and shoes and wash thoroughly before reuse. Get medical attention if any discondru continues. 4.10 Eye contact: Promptly wash eyes with plently of water while lifting the eyelids. Make sure to renow any contact lenses from the eyes before rining. Continue to rinse for at least 15 minutes. Get medical attention if any discondruic continues. 4.10 Ingestion: Promptly wash eyes with plently of water while lifting the eyelids. Make sure for encove any contact lenses from the eyes before rining. Continue to rinse for at least 15 minutes. Get medical attention if any discondruic control control medical professional. Get medical attention at any discondruic control control medical professional. Get medical attention and the super lifting medical attention. 4.2 Most important symptoms and effects, both acure and dalayed: Inhalation: May cause coughing or mild irritation. 4.2.1 Inhalation: May cause coughing or mild irritation. May cause enderson in ritation. 4.2.2 Inhalation: May cause coughing or mild irritation. May cause discondruic may cause referess and mild irritation. 4.2.3 Notes to physician/first responder: This product is not flammable. Valid first addition, or ingestion of this product. If in doubt, og medical attention prophile. 5.1 Suitable exclinguishing media: This product is not flammable. Use fire-exclinguishing media 5.1 Suitable exclinguishing media: This product is not			
attention if any discontoric continues. 4.10 Eye contact: Promptly wask yeav with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for atleast 15 minutes. Get medical attention if any discontrol continues. 4.1d Ingestion: PFCPE MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS Rimse mouth thoroughly. Do not induce vorting without attention if any discontrol continues. 4.2 Most important symptoms and effects, both acute and delayed: Contains software development and in the prolonged exposure. 4.2.a Inhalation: May cause discontrol for maxer dessification, but may cause releass and irritation after prolonged exposure. 4.2.b Skin contact: Prolonged skin contact may cause recellents. 4.2.a Inhalation: May cause discontrol if swallowed. 4.3 Indication of any immediate medical attention and special treatment needod: In obscin first all maxesures noted, but first ald may still be required in case of accidential exposure, inhalation, or ingestion of his product. 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1.a Suitable extinguishing media: None known. 5.2 Hazardous combustion products: None known.			
4.10 Eye contact: Promptly wash eyes with plenty of water while iffing the eyelids. Make sure to renow any contract lenses from the eyes before rining. Continue to rinse for at least 15 minutes. Get medical attention if any discontrot continues. 4.10 Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS Rinse mount through; Do not induce wornting without advice from poison cortiol center or medical professional. Get medical attention if any discontrat continues. 4.21 Most important symptoms and effects, both acute and delayed: Contains some mazie, search disclification, but may cause redness and mild inflation. 4.22. Inhalation: May cause coughing or mild inflation. May cause coughing or mild inflation. 4.23. No sontact: Prolonged skin contact may cause redness and mild inflation. 4.24. Ingestion: May cause discontific at mag cause redness and mild inflation. 4.26. No sontact: Prolonged skin contact may cause redness and mild inflation. 4.27. Indication of any immediate medical attention ad prolonged exposure. No specific first aid measures noted, but first aid may still be required in doubt, get medical attention promptivit 4.38. Notes to physician/first responder: This product is not finamable. Use fire-extinguishing media appropriate or fire any ponder. Treat symptomilation: of use 5.1 Extinguishing media: This product is not finamable. Use f			
4.1d Ingestion: Even to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attendion if any discontrol conter or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical professional. Get medical advice from poison control center or medical profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention profession of this product. If in doubt, get medical attention product is not explosive. No dangerous reactions know under normal conditions of use. Section 5: Firefighting media: None known. Section 5: Advice for infregitters: None known. Section 5: Advice for infregitters from the substance or mixture: Size Protective measures in fire: Advice for infregitters: Display in the desting infregitters: Display infregitters: Display infregitters: Display infregitters: Display infregitters: Display infregitters: Display infreginters: Display infreginters: Display infreginterese	4.4.5	Fue contact:	Alternion il any discomort continues.
Continue to rinse for at least 15 minutes. Cert medical attention if any discomfort continues. 4.1d Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUDIST Rinse mouth throughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues. 4.2 Most important symptoms and effects, both acut and delayed: Contains socium azde, socium chioride, and phosphates which are below the threshold for hazzrd castification, but may cause redoness and imfast after protomated and infast after protomated may causes incomfort if svalues redoness and imfast after protomotient is available to reduce the standard of the surd castification, but may cause redoness and imfast after protomotient is available to reduce the surger of the surger of the surger in dicuts, get medical attention and special treatment needed: 4.3 Indication of any immediate medical attention and special treatment needed: No specific first aid measures noted, but first any still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly! 5.1 Extinguishing media: That sprotarial suppropriate for surger of uses. 5.1 Extinguishing media: Note stop hysician/first responder: 5.2 Hazardons combustion products: None under normal conditions of use. 5.2 Surger for the substance or this product is not flammable. Product is not exposive. No dangerous appropriate for surrounding materials. 5.	4.1C	Eye contact:	
discomfort continues. idiscontro continues. 4.1d Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS finise mouth throughly. Do not inclored, and prosphates which are baddee from poison control center or medical professional. Get medical attention if any discontrol continues. 4.2 Most important symptoms and effects, both acute and delayed: Contains sodium acide, sodium Choirde, and phosphates which are below the threshold for hazard classification, but may cause redness and initiation affer prolonged exposure. 4.2a Inhalation: May cause beingorary eye initiation. 4.2b Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Ingestion of any immediate medical attention and special treatment needed: May cause beingorary eye initiation. 4.3a Indication of any immediate medical attention and special treatment needed: Treat symptomatically. Refer to Sections 5-8 for advice on personal prolective equipment. 5.1a Suitable extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.2b Unsuss life e 4 xplosion hazards; None known. None known. 5.2c Protective equipment and precautions for mixture: None under normal conditions. 5.2a Advice for finefighting mocedures: None known.			
4.1d Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDIST Rinse mouth throughly to not induce vomiting without advice from poison control center or medical professional. Get medical attention if any disconfrar continues. 4.2 Most important symptoms and effects, both acu and delayed: Contains sodium azide, sodium chiorke, and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure. 4.2a Ishalation: May cause compare yea irritation. 4.2b Eve contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Eve contact: May cause elemporary age irritation. 4.31 Indication of any immediate medical attention and special treatment needed: Tit in doubt, get medical attention promptly. 4.3a Notes to physician/first responder: This product is not fammable. Use fire extinguishing media 5.1 Extinguishing media: This product is not fammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.1 Subjected first add mesures None forwards. None under normal conditions of use. 5.2 Unsultation products: None inforwards. None inforwards. None inforwards. 5.1 Extinguishing media: This product is not expl			
FLUIDS! Rise mouth throughly. Do not induce womting without addres from poison control centre or medical professional. Get medical attention if any discomfort continues. 4.2 Most important symptoms and effects, both acute and delayed: Contains sodium acide, sodium choide, and phosphates which are below the threshold for hazard classification, but may cause redness and mild irritation. 4.2a Inhiaiton: May cause couging or mild irritation. 4.2a Inhiaiton: May cause deconder may cause redness and mild irritation. 4.2a Inhiaiton: May cause deconder may cause redness and mild irritation. 4.2a Inhiaiton: May cause deconder medical attention and y cause deconder may cause redness and mild irritation. 4.3a Indication of any immediate medical attention any cause deconder first aid measures noted, but first aid may still be required in rease of accident exposure. Trade attention prompily 4.3a Notes to physician/first responder: Trade attention prompily Refer to Section 5-8 for advice on personal proporties for the surrounding media. 5.1a Suitable exinguishing media: Water spray, foam, dry powder, or carbon dixide. 5.2a Hazardous combustion products: None known. 5.2a Special fire deploy on hazards: None under normal conditions. 5.2b Special fir			
advice from poison control center or medical professional. Get medical attention if any disconfrot continues. 4.2e medical attention if any disconfrot continues. 4.2. Inhalation: May cause coupling or mild initiation. 4.2. Inhalation: May cause coupling or mild initiation. 4.2. Skin contact. Prolonged exposure. 4.2. Inhalation: May cause disconfrot if swallowed and initiation after prolonged exposure. 4.2. Indication of any immediate medical attention and special treatment needed: May cause disconfrot if swallowed. 4.3. Indication of any immediate medical attention and special treatment needed: May cause disconfrot if swallowed. 4.3. Indication of any immediate medical attention promptly Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. 5.4. Extinguishing media: This product is not fammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1. Extinguishing media: More upport, Nam. dry powder, or carbon dioxide. 5.1. Subtable extinguishing media: More sport, Nam. dry powder, or carbon dioxide. 5.1. Subtable extinguishing media: More sportective extinguishing media: 5.2. Hatadia scription hava distable	4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK
4.2 Most important symptoms and effects, both acute and delayed: and delayed: and delayed: and delayed: and delayed: and delayed: and delayed: and initiation after prolonged skin contact may cause redness and initiation. May cause coughing or mild irritation. 4.20. Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.20. Skin contact: May cause discortion if swallowed. A.3 Indication of any immediate medical attention and specific first aid measures noted, but first aid may still be required way cause idential exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptlyl Treat symptomatically. Refer to Sections 5.4 for advice on personal protective equipment. Socien 5: Firefighting measures 5:1 Extinguishing media: This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5:2 Special hazards arising from the substance or maximum is appropriate for the surrounding materials. 5:2 Ariazardous combustion products: None under normal conditions of use. Sing dual fire 4 explosion hazards: None under normal conditions of use. Singe al firefighters: Nos specific firefighters: None under normal conditions. Special firefighters: Nos specific firefighters: Nos specific firefighters: Nos specific firefighters: <			FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without
4.2 Most important symptoms and effects, both acute and delayed: and delayed: and delayed: and delayed: and delayed: and delayed: and delayed: and initiation after prolonged skin contact may cause redness and initiation. May cause coughing or mild irritation. 4.20. Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.20. Skin contact: May cause discortion if swallowed. A.3 Indication of any immediate medical attention and specific first aid measures noted, but first aid may still be required way cause idential exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptlyl Treat symptomatically. Refer to Sections 5.4 for advice on personal protective equipment. Socien 5: Firefighting measures 5:1 Extinguishing media: This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5:2 Special hazards arising from the substance or maximum is appropriate for the surrounding materials. 5:2 Ariazardous combustion products: None under normal conditions of use. Sing dual fire 4 explosion hazards: None under normal conditions of use. Singe al firefighters: Nos specific firefighters: None under normal conditions. Special firefighters: Nos specific firefighters: Nos specific firefighters: Nos specific firefighters: <			advice from poison control center or medical professional. Get medical
4.2 Most important symptoms and effects, both acute and delayed: Contains sodium acide, sodium chioride, and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure. 4.2a Inhalation: May cause couping or mild irritation. 4.2b Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Eye contact: May cause couping or mild irritation. 4.2d Inhaliton of any immediate medical attention and special treatment needed: May cause discombort if swallowed. 4.3 Indication of any immediate medical attention and special treatment needed: The sponduct is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1 Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.10 Unsultable extinguishing media: None known. 5.20 Special frazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions. 5.3.3 Advice for firefighters: Nore under normal conditions. 5.3.4 Advice for firefighters: No specific firefighting nocular. 5.3.3 Special protective equipment appropriate for surrounding materials. </td <td></td> <td></td> <td></td>			
and delayed: below the threshold for hazard classification, but may cause redness and irritation and irritation and irritation. 4.2b Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Ingestion: May cause demosary inhalation, or ingestion of this product. If in doubt, get medical attention promptly! 4.3a Indication of any immediat attention and special treatment needed: No specific first aid mesures inhalation, or ingestion of this product If in doubt, get medical attention promptly! 5.1 Suitable extinguishing media: This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Unauitable extinguishing media: None known. 5.2 Hazardous combustion products: None known under normal conditions of use. 5.2 Hazardous for firsfightners: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3 Advice for firsfightners: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3 Special protective equipment and precautions for fi	4.2	Most important symptoms and effects, both acute	
and initiation after prolonged exposure. 4.2a Inhalation: 4.2b Skin contact: 4.2c Eye contact: 4.26 Eye contact: 4.27 Indication of any immediate medical attention and special treatment needed: 4.3 Indication of any immediate medical attention and special treatment needed: 4.3 Noles to physician/first responder: 7 Treat symptomatically. Refer to Sections 5-8 for advice on personal profession of the surrounding materials. 5.1 Extinguishing media: Water spray, feam, dry powder, or carbon dioxide. 5.1 Suitable extinguishing media: Water spray, feam, dry powder, or carbon dioxide. 5.10 Insultable extinguishing media: None known. 5.20 Special frazards arising from the substance or mation sources. No smoking. This product is not flammable. Product is not explosive. No dangerous freedown under normal conditions of use. 5.3 Advice for firefighters: Nore under normal conditions. 5.4 Advice for firefighters: No specific friefighting procedures given. 5.3 Special protective equipment appropriate for surrounding materials. 5.4 Advice for firefighters:			
4.2a Inhalation: May cause coughing or mild irritation. 4.2b Skin contact may cause redness and mild irritation. 4.2c Indication of any immediate medical attention and special treatment needed: May cause discontori if wallowed. 4.3a Indication of any immediate medical attention and special treatment needed: May cause discontori if wallowed. 4.3a Notes to physician/first responder: Treat sympometrically. Refer to Sections 5-8 for advice on personal protective equipment. 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1 Special heards arising from the substance or mixture: This product is not flammable. Use fire-extinguishing media: 5.1 Suitable extinguishing media: Nore known. 5.2 May cause extinguishing media: Nore known. 5.3 Advice for firefighting procedures: No unusat fire a explosion hazards: 5.4 Usual fire & explosion hazards: No unusat fire a explosion hazards: 5.3 Advice for firefighting procedures: No specific firefighting procedure given 5.3 Advice for firefighting procedures: No specific firefighting procedure given 5.3 Advice for firefighting procedures: No s		and delayed.	
4.2b Skin contact: Prolonged skin contact may cause redness and mild irritation. 4.2c Eye contact: May cause temporary ever irritation. 4.2c Eye contact: May cause temporary ever irritation. 4.31 Indication of any immediate medical attention and special treatment needed: No specific first aid masures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly 4.33 Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal propriate for the surrounding materials. 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media apporpriate for the surrounding materials. 5.10 Unsuitable extinguishing media: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.21 Bazzards arising from the substance or mixture: None under normal conditions. 5.22 Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.32 Special protegrup metal and precautions for firefighters: No specific firefighting procedure se, sparks, open flames and other ignition sources. No smoking. 5.33 Special protective equipment and precautions for firefighters:	4.0-		
4.20 Ingestion: May cause temporary eye initiation. 4.30 Ingestion: May cause discontrol it swallowed. 4.31 Indication of any immediate medical attention and special treatment needed: Nay cause discontrol it swallowed. 4.32 Ingestion: May cause discontrol it swallowed. 4.33 Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. 5.41 Extinguishing media: This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.10 Insulable extinguishing media: Water sprax, foam, dry powder, or carbon dixide. 5.22 Special hazards arising from the substance or mixture: This product is not flammable. Product is not replosive. No dangerous reactions known under normal conditions. 5.24 Hazardous combustion products: None under normal conditions. Moe specific firefighting procedures: 5.33 Special free/ghting procedures: No specific firefighting procedures: No specific firefighting procedure given. 5.34 Special protective equipment and precautions for firefighters. No specific firefighting procedures: No specific firefighting procedures: 6.1 Personal precautions, protective equipment and emergency procedures: No specific fi			
4.2d Ingestion: May cause discontorit if svalloved. 4.3 Indication of any immediate medical attention and special troatment needed: No specific first aid masy still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doub, get medical attention promptly! 4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Suitable extinguishing media: This product is not flammable. Product is not explosive. No dangerous mature: 2.2 Reading hazerds arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous mature: 5.2.0 Hazards arising from the substance or mixture: No ne under normal conditions of use. 5.2.1 Hazards arising from the substance or mixture: No specific firefighting procedure (ginton sources. No smoking. 5.3.2 Dunusual fire 4 explosion hazards: No unusual fire or explosion hazards noted. 5.3.3 Special protective measures in fire: Use protective equipment angp			
4.3 Indication of any immediate medical attention and special treatmen needed: In os specific first aid measures noted, but first aid may still be required in case of acidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly! 4.3a Notes to physician/first responder: Triest symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1b Unsultable extinguishing media: None known. 5.2b Special hazards arising from the substance or mixture: None known. 5.2b Unsultable extinguishing media: None under normal conditions. 5.2b Unsult fre & explosion hazards: No ne under normal conditions. 5.2b Unsult fre & explosion hazards: No unsult fre or explosion hazards noted. 5.3a Special protective equipment and precautions for lirefighters: No specific freighting procedure given. 5.3b Special protective equipment and precautions for lirefighters: No specific freighting procedure given. 6.1 Personal precautions, protective equipment, and emergency procedures: </td <td></td> <td></td> <td></td>			
special treatment needed: in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptlyl 4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions. 5.2 Hezardous combustion products: None known. 5.3 Advice for firefighters: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighters: No unusual fire or explosion hazards; noted. 5.3 Special protective equipment and procedures; Protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.1 Extinguise measures In order protective equipment and other ignition sources. No smoking. 6.1a General release measures Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than	4.2d		May cause discomfort if swallowed.
special treatment needed: in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptlyl 4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions. 5.2 Hezardous combustion products: None known. 5.3 Advice for firefighters: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighters: No unusual fire or explosion hazards; noted. 5.3 Special protective equipment and procedures; Protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.1 Extinguise measures In order protective equipment and other ignition sources. No smoking. 6.1a General release measures Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than	4.3	Indication of any immediate medical attention and	No specific first aid measures noted, but first aid may still be required
If in doubt, get medical attention promptly! 4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: This product is not flammable. Use fire-extinguishing media: 5.1b Unsuitable extinguishing media: Water spray, foarm, dry powder, or carbon dioxide. 5.2b Special hazards arising from the substance or mixture: None known. 5.2b Unsultable extinguishing media: None under normal conditions. 5.2b Unsultable fire & explosion hazards: No nor under normal conditions. 5.2b Unsultablifier & explosion hazards: No nore under normal conditions, open flames and other ignition sources. No smoking. 5.3 Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special protective equipment and precautions for firefighters: No specific firefighting no sources. No smoking. 5.4 Personal precautions, protective equipment, and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small splits. We			
4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures This product is not flammable. Use fire-extinguishing media: appropriate for the surrounding materials. 5.1 Extinguishing media: Water spray, Toam, dry powder, or carbon dioxide. 5.1 Unsuitable extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.2a Hazardous combustion products: None known. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3a Special protective equipment and precautions for firefighting procedure given. Vear fuil protective clohing, including self-contained breathing apparents, finecessary. The product presents no special fire fazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 6.1a General release measures Use protective equipment appropriate for surrounding materials. 6.1b Advice			
Section 5: Firefighting measures 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1a Special hazards arising from the substance or mixture: None known. 5.2a Hazardous combustion products: None under normal conditions of use. 5.2b Unusual fire a explosion hazards: None under normal conditions. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3b Special protective equipment and precautions for firefighters: Wear full protective colthing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.1a General release measures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific meregency presonal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precau	4.3a	Notes to physician/first responder:	
Section 5: Firefighting measures 5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foar, dry powder, or carbon dioxide. 5.1b Unsuitable extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.3a Advice for firefighters: Use protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific ferefighting procedures in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures 0 Special protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1 General release measures No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills	1.00		
5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1b Unsuitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.2 Special hazards arising from the substance or mixture: None known. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefighters: Keep away from heat, not surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special incretighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific emergency precessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professio			
5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1b Unsuitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.2 Special hazards arising from the substance or mixture: None known. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefighters: Keep away from heat, not surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special incretighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific emergency precessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professio	Soctio	n 5: Eirofighting mossures	
appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1b Unsultable extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.3b Special protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective cothing, gloves and eye or face protection. Consult professional emergency personnel			This word, at is not flow mobile. Lies five auting visibing modie
5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. 5.1b Unsuitable extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighters: No specific friefighting procedures sparks, open flames and other ignition sources. No smoking. 5.3b Special protective equipment and precautions for firefighters: No specific friefighting procedures sparks, open flames and other ignition sources. No smoking. 5.3b Special protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for anall splits. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency procedures: 6.1b Advice for non-emergency personal precautions, protective equipment and emergency viclas cere to sacting hik, in, eyes, and pers	5.1	Extinguishing media:	
5.1b Unsuitable extinguishing media: None known. 5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unsusal fire & explosion hazards: No unsusal fire or explosion hazards noted. 5.2b Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.1a Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1a General release measures: Use protective equipment appropriate for surrounding materials. 6.1a Advice for non-emergency personnel; personal protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency procedures: 6.1b Advice for non-emergency personnel; personal procedures; procedures; procedures; mist, or gas. Evacuate personal solitos., protective equipment and emergency hygiene and safety practices. W	= 4		
5.2 Special hazards arising from the substance or mixture: This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefightners: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency procedures are required other than good laboratory hygiene and safety practices. Wear suitable profestion and control dust/mist. Aviod breathing procedures: 6.1b Advice for non-emergency personnal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection to procedures:			
mixture: reactions known under normal conditions of use. 5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.4 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency presonnel if concreated see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency weasures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency presonnel if concreated see exclose 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency (also refer to Section 8). </td <td></td> <td></td> <td></td>			
5.2a Hazardous combustion products: None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3b Special firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices. For small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency presonal precautions, protective equipment and emergency responders; personal precautions, protective equipment and emergency responder is; error was approv	5.2	Special hazards arising from the substance or	This product is not flammable. Product is not explosive. No dangerous
5.2b Unusual fire & explosion hazards noted. 5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3 Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing appravatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: Use protective equipment appropriate for surrounding materials. 6.1a Advice for non-emergency personnel; personal procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protective clothing goves and eye or face protective clothing uprocedures: 6.1b Advice for emergency presonnel; personal precautions, protective equipment and emergency hygiene and safety practices. Wear s		mixture:	reactions known under normal conditions of use.
5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting processery. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Ise protective equipment appropriate for surrounding materials. 6.1a General release measures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency visit, or gas. Evacuate personnel to safe area. Wear suitable protective clothing/gloves/eye/ace protection to avoid contact with skin, eyes, and personal clothing; sloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if serie area. Wear suitable protective clothing, gloves and eye or face protection to avoid contact, use an approved supplied-air respirator, in case of emergency (5.2a	Hazardous combustion products:	None under normal conditions.
5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials. 5.3a Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: No specific firefighting procedure given. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for emergency personnel; personal precautions, protective equipment and emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or	5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.3 Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 5.3a Special protective equipment and precautions for firefighting procedure given. No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing appratus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/everface protection. Consult professional emergency everause and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid conta	5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.
5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Energency procedures: No specific freegency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing gloves and eye or face protection. Consult procedures: 6.1b Advice for non-emergency personnal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing gloves and eye or face protection. Consult procedures: 6.1b Advice for non-emergency personnal if precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing gloves and eye or face protective clother and precautions, protective equipment and emergency and precaute ventilation and control dust/mist. Avoid breathing vapors, mist, or gas.		Advice for firefighters:	
5.3a Special firefighting procedures: No specific firefighting procedure given. 5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific mergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing; gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel it oncerned if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	••••	······································	
5.3b Special protective equipment and precautions for firefighters: Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Image: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing, use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency also refer to Section 8). Wear suitable protecti	5 32	Special firefighting procedures:	
firefighters: apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures Image and other ignition sources. No smoking. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and eye or face p			Wear full protective clothing, including self-contained breathing
Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to provent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental preca	0.00		
Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel if oncerned if contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Do not allow to enter drains, sewers, or watercourses. 6		mengmers.	
Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contai any s			
6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/ey/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Do not alllow to enter drains, sewers, or water sources. Pla			tiames and other ignition sources. No smoking.
6.1 Personal precautions, protective equipment, and emergency procedures: Use protective equipment appropriate for surrounding materials. 6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/ey/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Do not alllow to enter drains, sewers, or water sources. Pla	•		
emergency procedures:6.1aGeneral release measures:6.1aGeneral release measures:8.1bNo specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:6.1cAdvice for emerg			1
6.1a General release measures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable <td>6.1</td> <td></td> <td>Use protective equipment appropriate for surrounding materials.</td>	6.1		Use protective equipment appropriate for surrounding materials.
Image: Section and section of the s		emergency procedures:	
6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources.Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources.	6.1a	General release measures:	No specific emergency measures are required other than good
6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources.Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources.			laboratory hygiene and safety practices for small spills. Wear suitable
6.1bAdvice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: 6.2 Environmental precautions: 6.3 Methods and materials for containment and clear up: 			
precautions, protective equipment and emergency procedures:laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable	6.1h	Advice for non-emergency personnel: personal	
 clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: 6.2 Environmental precautions: 6.3 Methods and materials for containment and clean up: 			
 and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: 			
of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable		procedures.	
Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.1cAdvice for emergency responders; personal precautions, protective equipment and emergency procedures:Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			contamination. Consult professional emergency personnel if
6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
precautions, protective equipment and emergency procedures:avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).6.2Environmental precautions:Do not allow to enter drains, sewers, or watercourses.6.3Methods and materials for containment and clean up:Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable	6.1c	Advice for emergency responders: personal	
procedures: emergency (also refer to Section 8). 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses. 6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable			
6.3 Methods and materials for containment and clean up: Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable	6.2		
clean up: migration and entry into sewers or water sources. Place in a suitable		Mothode and materials for containment and	
	0.5		
container for disposal in accordance with local waste regulations (see		clean up:	
			container for disposal in accordance with local waste regulations (see

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 3 of 6

	<u>10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D;</u>	Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 3 of 6 Section 13). Wash spill area thoroughly with plenty of soap and water.
		Avoid contact with skin or inhalation of spillage, dust, or vapour.
6.4	Reference to other sections:	Refer to Sections 8 and 13 for additional information.
•	-	
<u>Sectio</u> 7.1	n 7: Handling and storage Precautions for safe handling:	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with halogenated hydrocarbons, strong acids, strong oxidizers, and metals.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	Conditions for safe storage, including any incompatibilities:	Store in cool place. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	Specific end use(s):	For research use only. Not for use in diagnostic procedures.
	n 8: Exposure controls/personal protection	
8.1 8.1a	Control parameters: Occupational exposure limits, such as chemical	Not available.
	identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	
8.1b 8.1c	Appropriate engineering controls: Individual protection measures, such as personal protective equipment:	Wear gloves. Wear protective goggles.
8.1d	Safety symbols:	
8.2	Exposure controls:	
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d 8.2e	Reference to other sections: Eye/face protection:	Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is
8.2e	Skin protection:	reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.
9.1	n 9: Physical and chemical properties Information on basic physical and chemical	
5.1	properties:	
0.10	Annearance (nhysical state color ato)	
9.1a 9.1b	Appearance (physical state, color, etc.): Odor:	Liquid; colorless. No characteristic odor.

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 4 of 6

014		Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 4 of 6
9.1d	pH:	6.7-7.1
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.11	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
Section	10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.1	Chemical stability:	Stable under normal temperature conditions.
10.2	Possibility of hazardous reactions:	Hazardous polymerization: will not polymerize.
10.3	Conditions to avoid:	
10.4		To avoid product degradation, avoid exposure to high temperatures or
40.5	la compatible materials	direct sunlight or light.
10.5	Incompatible materials:	Avoid contact with halogenated hydrocarbons, strong acids, strong
		oxidizers, and metals.
10.6	Hazardous decomposition products:	None under normal conditions.
Section	11: Toxicological information	
11.1	Information on toxicological effects:	
11.1a	Name:	10X Cellular Wash Buffer
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
		Not determined.
11.1e	Respiratory or skin sensitization:	
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.11	Information on the likely routes of exposure	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
	(inhalation, ingestion, skin and eye contact):	
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory
11.111		system and cause coughing.
11.10	Skin contact:	
	Skin contact:	Liquid may irritate skin and cause redness.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and	No specific symptoms noted.
	toxicological characteristics:	
11.1r	Delayed and immediate effects as well as chronic	Not determined.
	effects from short and long term exposure:	
11.1s	Numerical measures of toxicity (such as acute	Not determined.
	toxicity estimates):	
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1v	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
	Classification by International Agency for Research	Not classified.
11.1y		
-	on Cancer (IARC):	
11.1z	Classification by OSHA 13:	Not classified.
-		Not classified. None.
11.1z	Classification by OSHA 13:	
11.1z 11.1ab	Classification by OSHA 13: Other information:	
11.1z 11.1ab Section	Classification by OSHA 13: Other information: 12: Ecological information	
11.1z 11.1ab	Classification by OSHA 13: Other information:	

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 5 of 6

12.3	Persistence and degradability: Bioaccumulative potential:	There are no data on the degradability of this product. No data available on bioaccumulation.
12.4	Mobility in soil:	The product is soluble in water.
12.5	Results of PBT and vPvB assessment:	Not determined.
12.6	Other adverse effects:	The product contains a substance (sodium azide ≤0.1%) that may
		cause long term adverse effects in the aquatic environment. However
		at the concentrations present, this product does not need to be
		classified as hazardous for the environment, and the effects are not
		expected to be significant.
Sectior 13.1	n 13: Disposal considerations Waste treatment methods:	When bondling waste, conjuderation about the made to the cofety
13.1	waste treatment methods.	When handling waste, conisderation should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on	Dispose of waste and residues in accordance with local authority
	their safe handling and methods of disposal,	requirements. For the safety of persons conducting disposal, recycling
	including the disposal of any contaminated	or reclamation activities, please refer to the information in Section 8
	packaging:	(exposure controls and personal protection) of the SDS.
0	A A Townson of the formula time	
Section 14.1	n 14: Transport information UN number:	Not applicable.
14.2	UN proper shipping name:	Not applicable.
14.3	Transport hazard class(es):	Not applicable.
14.4	Packing group:	Not applicable.
14.5	Environmental hazards:	The product contains a substance (sodium azide ≤0.1%) that may
14.0		cause long term adverse effects in the aquatic environment. However
		at the concentrations present, this product does not need to be
		classified as hazardous for the environment, and the effects are not
		expected to be significant.
14.5a	Is it environmentally dangerous according to UN	No.
	Model Regulations (IMDG Code, ADR, RID, and	
	ADN)?:	
14.5b	Is it a marine pollutant according to the IMDG	No.
	code?:	
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of	Not applicable.
	MARPOL and the IBC code:	
14.7a 14.7b	Other information:	The product is not considered a dangerous good for transport.
14.70	Classification for other modes of transport:	Contact supplier.
	n 15: Regulatory information	
15.1	Safety, health and environmental	
	regulations/legislation specific for the substance or mixture:	
15.1a	Regional safety, health and environmental	
	regulations specific for the product in question:	
15.1b	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.
		Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313. Sodium azide (CAS # 26628-22-8) is listed.
15.1c	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed.
15.1c 15.1d 15.1e	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know:	
15.1c 15.1d 15.1e 15.1f	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed.
15.1c 15.1d 15.1e 15.1f 15.1g	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1h	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1h	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation,
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and
15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. . Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Ot listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Ot listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Ot listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC
15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1i 15.1k	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1i 15.1i 15.1j 15.1k 15.1l	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Ot listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required.
15.1c 15.1d 15.1e 15.1f 15.1g 15.1i 15.1i 15.1i 15.1i 15.1l 15.1l	USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Ot listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required.

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 6 of 6

16.1a		revision:	Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 6 of 6 2017-05-19
16.1b		Imber and revision:	F17-6164-2-D
16.1c		edes SDS number and revision:	F17-6164-2-C
16.1d		es made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e		end to abbreviations and acronyms used in	ACGIH American Conference of Governmental Industrial Hygienists.
10.10	the SD		ADN European Provisions concerning the International Carriage of
	line SD.	5.	Dangerous Goods by Inland Waterway.
			ADR The European Agreement concerning the International Carriage
			of Dangerous Goods by Road.
			ATE Acute Toxicity Estimate.
			BCF Bio Concentration Factor.
			CAS Chemical Abstracts Service.
			CLP Classification, Labelling and Packaging.
			CMR Carcinogen, Mutagen or Reproductive toxicant.
			COD Chemical Oxygen Demand.
			EC European Commission.
			EC50 Half maximal effective concentration.
			EH40 Resource containing the list of workplace exposure limits for use
			with the Control of Substances Hazardous to Health Regulations.
			EINECS European Inventory of Existing Commercial chemical
			Substances.
			ELINCS European List of Notified Chemical Substances.
			EU European Union.
			GHS Globally Harmonized System of Classification and Labelling of
			Chemicals.
			H Statement GHS Hazard statement.
			IATA International Air Transport Association.
			IBC Intermediate Bulk Container.
			IC50 Half maximal inhibitory concentration.
			IMDG International Maritime Dangerous Goods.
			LC50 Median lethal concentration.
			LD50 Median lethal dose.
			LogPow logarithm of the octanol/water partition coefficient.
			MARPOL 73/78 International Convention for the Prevention of
			Pollution From Ships, 1973 as modified by the Protocol of 1978.
			OEL Occupational Exposure Limit.
			OSHA Occupational Safety and Health Administration (USA).
			PBT Persistent, Bioaccumulative, and Toxic.
			PEL Permissible Exposure Limit.
			RID The Regulations concerning the International Carriage of
			Dangerous Goods by Rail.
			SADT Self-Accelerating Decomposition Temperature.
			SARA Superfund Amendments and Reauthorization Act.
			SCBA Self-Contained Breathing Apparatus.
			SDS Safety Data Sheet.
			STOT Specific Target Organ Toxicity.
			STOT-RE Specific Target Organ Toxicity - Repeated Exposure.
			STOT-SE Specific Target Organ Toxicity - Single Exposure.
			UN United Nations.
			USA United States of America.
16 15	Eull tou	t of hozard atatamente and/ar areas there are	vPvB very Persistent very bioaccumulative.
16.1f		t of hazard statements and/or precautionary	All statements were written out in full.
		ents not written out in full elsewhere:	
DISCL	AIMER:		fic material designated and may not be valid for such material used
			or in any process. Such information is, to the best of the company's
			ble as of the date indicated. However, no warranty guarantee or
			liability, or completeness. It is the user's responsibility to satisfy
		himself as to the suitability of such inform	
		,	
		F	ND OF SDS

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 1 of 8

ImpunoChemistry TECHNOLOGIESLLC

SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

Sectio	n 1: Identification of the substance/mixtu	re and of the c	ompany/undertaking
1.1	Product identifier:		Fixative
1.1a	Other means of identification:		
1.1b	Alternative product name(s)/ sy	nonyms:	Fixative, Fix
1.1c	Product number/Catalog #(s):	- , -	536, 636
1.1d	Internal identification:		Fixative, Fix
1.2	Relevant identified uses of the substan and uses advised against:	ce or mixture	For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or intended to do:	mixture is	Laboratory reagent to preserve cells.
1.3	Details of the supplier of the SDS:		
1.3a	Name: Address:		ImmunoChemistry Technologies, LLC (ICT)
1.3b			9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country		Bloomington, MN 55431-2500 USA
1.3d	Phone number:		1-800-829-3194 and 952-888-8788
1.3e	Fax number:		952-888-8988
1.3f	Website:		www.immunochemistry.com
1.3g	Email:		help@immunochemistry.com
1.3h 1.4	Contact person at ICT: Emergency telephone number:		Quality Documentation Department ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424- 9300 or +1 703-527-3887. Collect calls accepted.
Sectio	n 2: Hazards identification		
2.1	Classification of the substance or mixture:		
2.1a	Product is a:	Mixture.	
2.1b 2.1c	1272/2008 {CLP}: H302 Acute H312 Acute H315 Skin H319 Eye I H317 Skin H341 Germ H350 Carci H371 Spec H335 Spec		Liquids, (Category 4) (USA Only). toxicity, Oral (Category 4). toxicity, Dermal (Category 4). ritation, (Category 2). ritation, (Category 2). ensitisation (Category 1). cell mutagenicity (Category 2). iogenicity (Category 1B). ic Target Organ Toxicity - Single Exposure (Category 2). ic Target Organ Toxicity - Single Exposure (Category 3) - Respiratory Tract. ct with liquid may cause immediate harm to skin, mouth, and eyes. Refer to 9-12.
2.2	environmental effects: Label elements:		
2.2a	GHS label elements, including		
	precautionary statements:		
2.2b	Contains:	Formaldehy	de <10%; and Methanol <5%.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	•	
2.2d	Hazard Pictograms (Hazard Symbols):	GHS07 Excl	amation mark. GHS08 Health hazard.
2.2e	Signal word:	Danger.	
2.2f	Hazard statements:	Danger.H227 Combustible liquids.H302 Harmful if swallowed.H312 Harmful if in contact with skin.H319 Causes serious eye irritation.H315 Causes skin irritation.H317 May cause an allergic skin reaction.H341 Suspected of causing genetic defects.H371 May cause damage to organs.H335 May cause respiratory irritation.	
2.2g	Precautionary statements:	P201 Obtain P280 Wear P301 + P312	a special instructions before use. protective gloves/ protective clothing/ eye protection/ face protection. 2 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if vell. Rinse mouth.

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 2 of 8

	Fixative SD				es: F17-536-2-C; Page 2 of 8 erned: Get medical advice/ attention.
					ash occurs: Get medical advice/ attention.
2.2h	Supplementary precaution st	tatements: P270	Do not	eat, drink or smoke	when using this product.
				reathing mist/vapors	
	P312 Ca P321 Sp P322 Sp P330 Rii P362 Ta P363 Wa		72 Contaminated work clothing should not be allowed out of the workplace. 12 Call a poison center or doctor if you feel unwell.		
				c treatment (see on t	
				c measures (see on the neuth	this label).
					ning
			P362 Take off contaminated clothing. P363 Wash contaminated clothing before reuse. P501 Dispose of contents/containers in accordance with local regulations.		
					plenty of soap and water.
					ictim to fresh air and keep at rest in a position
				or breathing.	
					se cautiously with water for several minutes. Remove
		conta	ict lense		sy to do. Continue rinsing.
2.3	Other hazards:		50	No additional inform	mation available.
2.3a	Does the chemical meet the		/B?	Not applicable.	
2.3b	Other hazards which do not	result in classification:		Not known.	
Sectio	n 3: Composition/informatio	n on ingrediente			
3.1	Substance:			Item is a mixture th	nerefore Section 3.1 is not applicable; see Section 3.2.
3.2	Mixture:			Item is a mixture.	
	The chemical identity and co	ncentration or concent	tration		
	ranges of all ingredients which				
	present above their cut-off le				
	3.2a Chemical identity:			Formaldehyde	
	3.2b Common name, synony	/ms, etc.:		CH ₂ O; Index# 605-	
	3.2c CAS number and			<u>3.2e %</u>	3.2f Classification according to (EC) No. 1272/2008
	other unique identifiers:	<u>3.2d EC numbe</u>	<u>r:</u>	Concentration:	<u>{CLP}:</u>
	50-00-0	200-001-8		<10%	H301 Toxic if swallowed. H311 Toxic in contact with
					skin. H331 Toxic if inhaled. Acute Tox. 3.
					H314 Causes severe skin burns and eye damage.
					Skin Corr. 1B.
					H318 Causes serious eye damage. Eye Dam. 1.
					H317 May cause an allergic skin reaction. Skin Sens.
					1. H341 Suspected of causing genetic defects. Muta. 2.
					H341 Suspected of causing genetic defects. Muta. 2. H350 May cause cancer. Carc. 1B.
					H335 May cause respiratory irritation. STOT SE 3.
3.2g	Other ingredient:				
- 5	3.2h Chemical identity:			Methanol	
	3.2i Common name, synony	ms, etc.:		CH ₄ O; Index # 603	3-001-00-X
	3.2j CAS number and			3.21 %	3.2m Classification according to (EC) No. 1272/2008
	other unique identifiers:	3.2k EC numbe	r:	Concentration:	{CLP}:
	67-56-1	200-659-6		<5%	H225 Highly flammable liquid and vapor. Flam. Liq. 2.
					H301 Toxic if swallowed. H311 Toxic in contact with
					skin. H331 Toxic if inhaled. Acute Tox. 3.
					H370 Causes damage to organs. STOT SE 1.
0					
	n 4: First aid measures			Conquiting	alaion and provide CDO information. If a second second
4.1	Description of first aid mea	asures:			sician and provide SDS information. If exposed or
					dical attention/advice. Wash contaminated clothing
					rer give anything to an unconscious person. First aid wear gloves/skin protection to avoid contact with
				product.	พอลา ยายของจึงการ คายเอยเมตร เปลี่ยงเป็น เป็นไลย์เ พิเมร
4.1a	Inhalation:				ir and keep at rest in a comfortable position for
- 1 .1a					eathing, give artificial respiration. Rinse nose and mouth
				with water. Get me	
4.1b	Skin contact:				clothing/shoes and immediately wash all exposed skin
				with soap and wate	er for at least 15 minutes. Take victim immediately to
				hospital. Get media	
4.1c	Eye contact:				ion immediately. Promptly wash eyes with plenty of
				water while lifting t	he eyelids. Make sure to remove any contact lenses
					bre rinsing. Continue to rinse for at least 15 minutes.
4.1d	Ingestion:			Get medical attenti	ion immediately and if any discomfort continues. NEVER
	-			MAKE AN UNCON	SCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse
				mouth thoroughly.	Do not induce vomiting without advice from poison
				control center or m	nedical professional.
4.2	Most important symptoms	and effects, both act	ute		ons 2 and 11 for most important known symptoms and
	and delayed:			effects.	
4.2a	Inhalation:			May cause respira	tory irritation.

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 3 of 8

4.2b	Skin contact:	Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
4.2c	Eye contact:	Causes serious eye irritation.
4.2d 4.3	Ingestion: Indication of any immediate medical attention and special treatment needed:	Harmful if swallowed. Get medical attention immediately.
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.
Sectio	n 5: Firefighting measures	
5.1	Extinguishing media:	Use fire-extinguishing media appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
5.1b	Unsuitable extinguishing media:	None known.
5.2	Special hazards arising from the substance or mixture:	•
5.2a	Hazardous combustion products:	None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials. Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
5.3	Advice for firefighters:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Sectio 6.1	n 6: Accidental release measures Personal precautions, protective equipment, and	Use protective equipment appropriate for surrounding materials and to avoid contamination.
6.1a	emergency procedures: General release measures:	No specific emergency measures are required other than good laboratory
0.14		hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel for large spills.
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing/gloves/eye/face protection to prevent any contamination of skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel for large and eye or face protection.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	for large spills or if concerned. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
6.2	Environmental precautions:	Do not allow to enter drains, surface, and ground water, sewers, or watercourses.
6.3	Methods and materials for containment and clean up:	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor
6.4	Reference to other sections:	Refer to Sections 8 and 13 for additional information.
Sectio	n 7: Handling and storage	
7.1	Precautions for safe handling:	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizing substances. Incompatible with strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory
7.2	Conditions for safe storage, including any incompatibilities:	 hygiene and safety practices. Refer to product label for storage. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 4 of 8

		Avoid spills and release into the environment; keep away from
7.3	Specific end use(s):	watercourses.
1.3	Specific end use(s):	For research use only. Not for use in diagnostic procedures.
	8: Exposure controls/personal protection	
<u>8.1</u> 8.1a	Control parameters: Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	Methanol: EH40 2005 UK Workplace Exposure Limits STEL: 333 mg/m ³ 15 minutes STEL: 250 ppm 15 minutes TWA: 266 mg/m ³ 8 hours TWA: 200 ppm 8 hours USA ACGIH Threshold Limit Values
		TWA- 200 ppm 8 hours TWA- 262 mg/m ³ 8 hours STEL- 250 ppm 15 minutes STEL- 328 mg/m ³ 15 minutes US NIOSH Recommended Exposure Limits TWA- 200 ppm 10 hours TWA- 260 mg/m ³ 10 hours STEL- 250 ppm 15 minutes STEL- 325 mg/m ³ 15 minutes OSHA Permissible Exposure Limits TWA- 200 ppm 8 hours TWA- 260 mg/m ³ 8 hours
		Formaldehyde EH40 2005 UK Workplace Exposure Limits STEL: 2.5 mg/m ³ 15 minutes STEL: 2 ppm 15 minutes TWA: 2 ppm 8 hours USA ACGIH Threshold Limit Values C: 0.300000 ppm OSHA PEL Subpart Z Standard - OSHA Specifically Regulated Chemicals/Carcinogens TWA 0.750000 ppm 8 hours STEL - 2.000000 ppm 15 minutes US NIOSH Recommended Exposure Limits TWA: 0.016000 ppm 10 hours CEIL - 0.100000 ppm 15 minutes
8.1b 8.1c	Appropriate engineering controls: Individual protection measures, such as personal protective equipment:	Wear gloves, lab coat, and protective goggles.
8.1d	Safety symbols:	
8.2	Exposure controls:	
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adquate ventilation.
8.2d 8.2e	Reference to other sections: Eye/face protection:	Refer to Section 5 for additional information. Tightly fitting safety goggles. Use equipment for eye/face protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740, Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 5 of 8

	<u>- 1200100 000, 000#1 11-000-2-0, Elle</u>	and must be evaluated by an industrial bygionist and cafety officer familiar
		and must be evaluated by an industrial hygienist and safety officer familiar
		with the specific situation of the customers' anticipated uses of the product.
		It should not be construed as offering an approval for any specific use
		scenario.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use
		a full-face respirator with multi-purpose combination (US) or type ABEK
		(EN 14387) respirator cartridges as a backup to engineering controls. If the
		respirator is the sole means of protection, use a full-face supplied air
		respirator. Use respirators and components tested and approved under
		appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	
		Wear appropriate clothing to prevent any possibility of skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift
		and before eating, smoking, and using the toilet. Promptly remove any
		clothing that becomes contaminated. Use appropriate skin cream to
		prevent drying of skin. When using do not eat, drink, or smoke. Wash
		promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known.
8.21	Environmental exposure controls:	Not determined.
Section	n 9: Physical and chemical properties	
9.1	Information on basic physical and chemical	
9.1		•
0.4	properties:	
9.1a	Appearance (physical state, color, etc.):	Liquid; colorless; clear.
9.1b	Odor:	Pungent
9.1c	Odor threshold:	Not determined.
9.1d	pH:	6.8-7.4
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	Not determined.
9.1g	Flash point (°C):	85°C estimated value based on supplier data.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not determined.
9.1j	Upper/lower flammability or explosive limits:	Upper: 70%(V) estimated value.
		Lower: 7%(V) estimated value.
9.1k	Vapor pressure:	53 hPa at 39°C estimated value.
9.11	Vapor density (Air =1):	Not applicable.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Readily miscible in water.
-		
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
0.24		
Santia	n 10: Stability and reactivity	
Section	Reactivity:	
40.4		
10.1		Strong acids. Strong oxidizing substances.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.2 10.3	Chemical stability: Possibility of hazardous reactions:	Stable under normal temperature conditions. Not determined.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.2 10.3	Chemical stability: Possibility of hazardous reactions:	Stable under normal temperature conditions. Not determined.
10.2 10.3 10.4	Chemical stability: Possibility of hazardous reactions: Conditions to avoid:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight.
10.2 10.3 10.4	Chemical stability: Possibility of hazardous reactions:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines,
10.2 10.3	Chemical stability: Possibility of hazardous reactions: Conditions to avoid:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates,
10.2 10.3 10.4 10.5	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline.
10.2 10.3 10.4	Chemical stability: Possibility of hazardous reactions: Conditions to avoid:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate:
10.2 10.3 10.4 10.5	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline.
10.2 10.3 10.4 10.5 10.6	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate:
10.2 10.3 10.4 10.5 10.6 Section	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate:
10.2 10.3 10.4 10.5 10.6 Section	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate:
10.2 10.3 10.4 10.5 10.6 Section	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate:
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde.
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. .
10.2 10.3 10.4 10.5 10.6 Section 11.1	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a 11.1b	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 Section 11.1 11.1a 11.1b	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section 11.1</u> 11.1a 11.1b	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b 11.1c 11.1c 11.1d 11.1e	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b 11.1b <u>11.1c</u> 11.1d 11.1c 11.1d 11.1e 11.1f	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b 11.1c 11.1c 11.1d 11.1e	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b 11.1b <u>11.1c</u> 11.1d 11.1c 11.1d 11.1e 11.1f	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td
10.2 10.3 10.4 10.5 10.6 <u>Section</u> 11.1 11.1a 11.1b 11.1b 11.1c 11.1d 11.1c 11.1d 11.1e	Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: n 11: Toxicological information Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity:	Stable under normal temperature conditions. Not determined. Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. None under normal conditions. High temperatures generate: Vapors/gases/fumes of: Formaldehyde. . </td

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 6 of 8
ACGIH - A2 (Suspected Human Carcinogen).

	Fixative SDS; Doc#F17-536-2-D; Effective	
14 41	Degraduation taxiait	ACGIH - A2 (Suspected Human Carcinogen).
11.1h	Reproductive toxicity:	Formaldehyde: Not determined. Methanol: Not determined.
1.1i	STOT-single exposure:	Formaldehyde: Not determined. Methanol: Not determined.
1.1j	STOT-repeated exposure:	Formaldehyde: Category 3, Respiratory Tract Irritation. Methanol: Not determined.
1.1k	Aspiration hazard:	Formaldehyde: Not determined. Methanol: Not determined.
1.11	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
1.1m	Ingestion:	Harmful if swallowed.
1.1n	Inhalation:	May cause respiratory irritation.
1.10	Skin contact:	Harmful in contact with skin. Causes skin irritation. May cause an allergi skin reaction.
11.1p	Eye contact:	Causes serious eye irritation.
1.1q	Symptoms related to the physical, chemical and toxicological characteristics:	May cause sensitization by skin contact.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	May cause cancer. Suspected of causing genetic defects. May cause damage to organs.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Formaldehyde is known to be a human carcinogen. Methanol is not listed.
11.1x 11.1y	Classification by International Agency for Research on	Formaldehyde is classified in Group 1: Carcinogenic to Humans. Methanol
y	Cancer (IARC):	is not listed.
11.1z	Classification by OSHA 13:	Formaldehyde is not listed. Methanol is not listed.
11.12 11.1ab	Other information:	Because of the small quantity of product, the health hazard is small.
	12: Ecological information	
12.1	Toxicity:	Mixture not tested.
12.1a	Name:	Fixative.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	No data available.
12.2	Persistence and degradability:	No data available.
12.3	Bioaccumulative potential:	No data available.
12.4	Mobility in soil:	No data available.
12.5	Results of PBT and vPvB assessment:	Not determined.
12.6	Other adverse effects:	Not determined.
Section	13: Disposal considerations	
13.1	Waste treatment methods:	When handling waste, consideration should be made to the safety
		precautions applying to handling of the product.
13.1a	Description of waste residues and information on their	Dispose of waste and residues in accordance with local authority
	safe handling and methods of disposal, including the disposal of any contaminated packaging:	requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.
Section	14. Transport information	
	14: Transport information	
14.1	UN number:	Not applicable.
14.1 14.2	UN number: UN proper shipping name:	Not applicable. Not applicable.
14.1 14.2 14.3	UN number: UN proper shipping name: Transport hazard class(es):	Not applicable. Not applicable. Not applicable.
14.1 14.2 14.3 14.4	UN number: UN proper shipping name: Transport hazard class(es): Packing group:	Not applicable. Not applicable.
14.1 14.2 14.3 14.4 14.5	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards:	Not applicable. Not applicable. Not applicable. Not applicable.
14.1 14.2 14.3 14.4 14.5	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model	Not applicable. Not applicable. Not applicable.
14.1 14.2 14.3 14.4 14.5 14.5a	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	Not applicable. Not applicable. Not applicable. Not applicable.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?:	Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No.
Section 14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL	Not applicable. Not applicable. Not applicable. Not applicable.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code:	Not applicable. Not applicable. Not applicable. Not applicable. . The product is not covered by these regulations. No. None known. Not applicable.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL	Not applicable. Not applicable. Not applicable. Not applicable. . The product is not covered by these regulations. No. None known.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7a 14.7b Section	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or	Not applicable. Not applicable. Not applicable. Not applicable. . The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations	Not applicable. Not applicable. Not applicable. Not applicable. . The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7 14.7 14.7 14.7 15.1 15.1a	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture:	Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport. Contact supplier. . USDA OSHA - Formaldehyde Standard Subpart Z 1910.1048. Formaldehyde is listed on 302, 304, 313, and RCRA code U122.
14.1 14.2 14.3 14.4 14.5a 14.5b 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313):	Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport. Contact supplier. . USDA OSHA - Formaldehyde Standard Subpart Z 1910.1048. Formaldehyde is listed on 302, 304, 313, and RCRA code U122. Methanol is listed on 313 and RCRA code U122.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7b Section 15.1a 15.1b 15.1c	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know:	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport. Contact supplier. . USDA OSHA - Formaldehyde Standard Subpart Z 1910.1048. Formaldehyde is listed on 302, 304, 313, and RCRA code U122. Methanol is listed on 313 and RCRA code U122. Formaldehyde and methanol are listed.
14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7a 14.7b	UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313):	Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport. Contact supplier. . USDA OSHA - Formaldehyde Standard Subpart Z 1910.1048. Formaldehyde is listed on 302, 304, 313, and RCRA code U122. Methanol is listed on 313 and RCRA code U122.

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 7 of 8

15.1g	EU Regulation 1907/2006 {REACH}:	
15.1h	Annex XIV substances subject to authorization:	Formaldehyde is listed.
15.1i	Substances of very high concern:	Fixative is not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.11	EU legislation references:	 (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	Chemical safety assessment:	Not required.
15.2a	Other regulatory information:	None.

6.1	Other information:	•
6.1a	Date of revision:	12-May-2017
6.1b	SDS number and revision:	F17-536-2-D
6.1c	Supersedes SDS number and revision:	F17-536-2-C
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers. Minor changes were made (corrected typos deleted redundant information, etc.).
16.1e	Version of the SDS: Key/legend to abbreviations and acronyms used in the SDS:	deleted redundant information, etc.). ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC50 Half maximal effective concentration. EL40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. ELINCS Median lethal dose. LogOw logarithm of the octanol/water partition coefficient. MARPOL 73/78 International
		vPvB very Persistent very bioaccumulative.
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.

<u>Fi</u> :	cative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 8 of 8
DISCLAIMER:	This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.
	END OF SDS

Propidium Iodide SDS; Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 1 of 6

ImunoChemistry TECHNOLOGIESLLC

SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

1.1	n 1: Identification of the substance/mixture and of th Product identifier:	
		Propidium Iodide
1.1a	Other means of identification:	
1.1b	Alternative product name(s)/ synonyms:	Propidium Iodide, PI
1.1c	Product number/Catalog #(s):	557, 638
1.1d	Internal identification:	Propidium Iodide; PI
1.2	Relevant identified uses of the substance or	For research use only. Not for use in diagnostic procedures.
	mixture and uses advised against:	
1.2a	Brief description of what the substance or mixture is	Intercalating fluorescent red reagent that is primarily used to identify
	intended to do:	necrotic and apoptotic cells.
1.3	Details of the supplier of the SDS:	
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
1.4	Emergency telephone number:	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide;
		ICT hours are 9 am-5 pm central time USA, Monday through Friday
		(excluding holidays). Chemtrec 24-hour access within USA and
		Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.
		· · · ·
Sectio	on 2: Hazards identification	
2.1	Classification of the substance or mixture:	
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008	Does not meet the criteria for classification.
2.10	{CLP}:	
2.1c	The most important adverse physiochemical, human	Refer to Sections 9-12.
2.10	health, and environmental effects:	
~ ~		
2.2	Label elements:	None.
2.2a	GHS label elements, including precautionary	
	statements:	
2.2b	Contains:	
2.2c	Labeling in accordance with (EC) No. 1272/2008:	None.
2.2d	Hazard Pictograms (Hazard Symbols):	None.
2.2e	Signal word:	None.
2.2f	Hazard statements:	None.
2.2g	Precautionary statements:	None.
2.2h	Supplementary precaution statements:	None.
2.3	Other hazards:	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	PI contains a low concentration of Phenanthridinium, 3,8-diamino-5-[3
		(diethylmethylammonio)propyl]-6-phenyl-, diiodide (CAS 25535-16-4)
		which is below the threshold for reporting. PI is a suspected mutagen
		at high concentrations. Prolonged skin contact may cause redness and
		irritation. Because of the small quantity of product, the health hazard is
		small.
Sectio	n 3: Composition/information on ingredients	
3.1	Substance:	Item is a mixture therefore Section 3.1 is not applicable; see Section
		3.2.
3.2	Mixture:	Item is a mixture.
	The chemical identity and concentration or	
	concentration ranges of all ingredients which are	
	hazardous and are present above their cut-off levels:	
	3.2a Chemical identity:	No ingredients identified for reporting in this section.
Sectio	on 4: First aid measures	
		If concerned, get medical attention/advice and provide physician with
4.1	Description of first aid measures:	
	Description of first aid measures:	SDS information. Wash contaminated clothing before re-use. Never give anything by mouth to an unconscious person.

Propidium Iodide SDS; Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 2 of 6

4.1a	Propidium Iodide SDS; Doc# F17-557-2-D; Effec	
4.1d	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and
4.1b	Skin contact:	mouth with water. Get medical attention if any discomfort continues. Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated
		clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make
		sure to remove any contact lenses from the eyes before rinsing.
		Continue to rinse for at least 15 minutes. Get medical attention if any
4.1d	Ingention	discomfort continues. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK
4.10	Ingestion:	FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without
		advice from poison control center or medical professional. Get medical
		attention if any discomfort continues.
4.2	Most important symptoms and effects, both acute	PI is a suspected mutagen at high concentrations. Prolonged skin
	and delayed:	contact may cause redness and irritation. Because of the small
4.0-		quantity of product, the health hazard is small.
4.2a 4.2b	Inhalation: Skin contact:	May cause coughing or mild irritation. Prolonged skin contact may cause redness and mild irritation.
4.20 4.2c	Eye contact:	May cause temporary eye irritation.
4.20 4.2d	Ingestion:	May cause discomfort if swallowed.
4.2u 4.3	Indication of any immediate medical attention and	No specific first aid measures noted, but first aid may still be required
-	special treatment needed:	in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal
		protective equipment.
Sectio	on 5: Firefighting measures	
5.1	Extinguishing media:	This product is not flammable. Use fire-extinguishing media
•		appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
5.1b	Unsuitable extinguishing media:	None known.
5.2	Special hazards arising from the substance or	This product is not flammable. Product is not explosive. No dangerous
	mixture:	reactions known under normal conditions of use.
5.2a 5.2b	Hazardous combustion products: Unusual fire & explosion hazards:	None under normal conditions. No unusual fire or explosion hazards noted.
5.20 5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.
5.3	Advice for firefighters:	Keep away from heat, hot surfaces, sparks, open flames and other
	3 1 1 1 3 1 1	ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
た つト	Special protective equipment and precautions for	Wear full protective clothing, including self-contained breathing
5.3b		
5.50	firefighters:	apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flower and other ignition sources. No smaking
5.30		
	firefighters:	in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Sectio 6.1	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures:	in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials.
Sectio	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and	in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good
Sectio 6.1	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable
Sectio 6.1	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
Sectio 6.1	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes,
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition.
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable
Sectio 6.1 6.1a	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing
Sectio 6.1 6.1a	firefighters: m 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if
Sectio 6.1 6.1a 6.1b	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of
Sectio 6.1 6.1a 6.1b 6.1c	firefighters: m 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency. (also refer to Section 8).
Sectio 6.1 6.1a 6.1b 6.1c 6.2	firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Environmental precautions:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency. (also refer to Section 8). Do not allow to enter drains, sewers, or watercourses.
Sectio 6.1 6.1a 6.1b 6.1c	firefighters: m 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	 in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency. (also refer to Section 8).

Propidium Iodide SDS: Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 3 of 6

	<u>Propialalli Iodide 3D3, Doc# F17-557-2-D, Elle</u>	Section 13). Wash spill area thoroughly with plenty of soap and water.
6.4	Reference to other sections:	Avoid contact with skin or inhalation of spillage, dust, or vapor. Refer to Sections 8 and 13 for additional information.
Sactio	n 7: Handling and storage	
7.1	Precautions for safe handling:	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	Conditions for safe storage, including any incompatibilities:	Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	Specific end use(s):	For research use only. Not for use in diagnostic procedures.
0		
Sectio 8.1	n 8: Exposure controls/personal protection Control parameters:	
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	Not available.
8.1b 8.1c	Appropriate engineering controls: Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
8.2 8.2a	Exposure controls: Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
<u>8.2g</u> 8.2h	Hand protection: Respiratory equipment:	Use suitable protective gloves if risk of skin contact. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j 8.2k 8.2l	Hygiene measures: Thermal hazards: Environmental exposure controls:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated None known under normal conditions of use.Not determined.
Sectio 9.1	n 9: Physical and chemical properties Information on basic physical and chemical properties:	
	Information on basic physical and chemical	Liquid; clear pink. No characteristic odor. Not determined.

Propidium Iodide SDS: Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 4 of 6

04-1		ctive: 05/12/2017; Supersedes: F17-557-2-C; Page 4 of 6
9.1d	pH:	4.5-6.5
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.11	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
Section	n 10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Hazardous polymerization: no data available.
10.4	Conditions to avoid:	To avoid product degradation, avoid exposure to high temperatures or
		direct sunlight or light.
10.5	Incompatible materials:	Strong oxidizing substances.
10.6	Hazardous decomposition products:	None under normal conditions.
Section	n 11: Toxicological information	
11.1	Information on toxicological effects:	
11.1a	Name:	Propidium Iodide.
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.11	Information on the likely routes of exposure	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.11		way enter by skin and/or eye contact, initialation of vapors/mist/dust.
	(inhalation, ingestion, skin and eye contact):	
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory
		system and cause coughing.
44.4	Okin contact:	
11.10	Skin contact:	Liquid may irritate skin.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and	No specific symptoms noted.
•	toxicological characteristics:	
11 1r	Delayed and immediate effects as well as chronic	Not determined
11.1r	Delayed and immediate effects as well as chronic	Not determined.
	effects from short and long term exposure:	
11.1r 11.1s	5	Not determined. Not determined.
	effects from short and long term exposure: Numerical measures of toxicity (such as acute	
11.1s	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1s 11.1t	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects:	Not determined. Not determined.
11.1s 11.1t 11.1u	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data:	Not determined. Not determined. Not applicable.
11.1s 11.1t 11.1u 11.1v	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures:	Not determined. Not determined. Not applicable. Item is a mixture.
11.1s 11.1t 11.1u 11.1v 11.1w	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information:	Not determined. Not determined. Not applicable.
11.1s 11.1t 11.1u 11.1v 11.1w	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture.
11.1s 11.1t 11.1u 11.1v 11.1w 11.1x	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP):	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified.
11.1s 11.1t 11.1u 11.1v 11.1w	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture.
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC):	Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified.
11.1s 11.1t 11.1u 11.1v 11.1w 11.1x	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified.
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y 11.1z	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. Not classified.
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC):	Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y 11.1z	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y 11.1z	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y 11.1z	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1s 11.1t 11.1u 11.1v 11.1w 11.1w 11.1x 11.1y 11.1z 11.1ab	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13: Other information:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1z 11.1z 11.1ab	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13: Other information: 12: Ecological information	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1s 11.1t 11.1u 11.1v 11.1v 11.1w 11.1x 11.1y 11.1z 11.1ab	effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13: Other information:	Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. PI is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity

Propidium Iodide SDS: Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 5 of 6

12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Not determined.
12.10 12.2	Persistence and degradability:	There are no data on the degradability of this product.
12.2	Bioaccumulative potential:	No data available on bioaccumulation.
12.3	Mobility in soil:	The product is soluble in water.
12.4	Results of PBT and vPvB assessment:	Not determined.
12.5	Other adverse effects:	No data available.
12.0	Other adverse effects.	
Sectio	n 13: Disposal considerations	
13.1	Waste treatment methods:	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on	Dispose of waste and residues in accordance with local authority
	their safe handling and methods of disposal,	requirements. For the safety of persons conducting disposal, recycling
	including the disposal of any contaminated	or reclamation activities, please refer to the information in Section 8
	packaging:	(exposure controls and personal protection) of the SDS.
	n 14: Transport information	T
14.1	UN number:	Not applicable.
14.2	UN proper shipping name:	Not applicable.
14.3	Transport hazard class(es):	Not applicable.
14.4 14.5	Packing group:	Not applicable.
	Environmental hazards:	. The preduct is not accord by these regulations
14.5a	Is it environmentally dangerous according to UN	The product is not covered by these regulations.
	Model Regulations (IMDG Code, ADR, RID, and ADN)?:	
14.5b	Is it a marine pollutant according to the IMDG	No.
14.00	code?:	
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of	Not applicable.
	MARPOL and the IBC code:	
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
	n 15: Regulatory information	
15.1	Safety, health and environmental	
	regulations/legislation specific for the substance or mixture:	
15.1a	Regional safety, health and environmental	
	regulations specific for the product in question:	
15.1b	USA SARA Components (such as 302/311/313):	Not listed.
15.1c	USA Massachusetts Right to Know:	Not listed.
<u>15.1d</u>	USA Pennsylvania Right to Know:	Not listed.
15.1e	USA New Jersey Right to Know:	Not listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 {REACH}:	Not listed
15.1h	Annex XIV substances subject to authorization:	Not listed.
<u>15.1i</u>	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations
15.1k	Guidance notes:	for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40.
15.1k 15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of
10.11		substances and mixtures {CLP Regulation}. EC 830/2015. Regulation
		(EC) No 1907/2006 of the European Parliament and of the Council of
		18 December 2006 concerning the Registration, Evaluation,
		Authorisation and Restriction of Chemicals (REACH), establishing a
		European Chemicals Agency, amending Directive 1999/45/EC and
		repealing Council Regulation (EEC) No 793/93 and Commission
		Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC
		and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and
		2000/21/EC, including amendments.
15.2	Chemical safety assessment:	Not required.
15.2a	Other regulatory information:	None.
		1
Section	n 16: Other information	
16.1	Other information:	
16.1a	Date of revision:	12-May-2017
16.1b	SDS number and revision:	F17-557-2-D
16.1c	Supersedes SDS number and revision:	F17-557-2-C
		Reviewed and updated document control numbers.
<u>10.1u</u>		
16.1e	Key/legend to abbreviations and acronyms used in	ACGIH American Conference of Governmental Industrial Hygienists.
	Key/legend to abbreviations and acronyms used in the SDS:	ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway.

	1	Propidium lodide SDS; Doc# F17-557-2-D; Effec	tive: 05/12/2017; Supersedes: F17-557-2-C; Page 6 of 6
			ADR The European Agreement concerning the International Carriage
			of Dangerous Goods by Road.
			ATE Acute Toxicity Estimate.
			BCF Bio Concentration Factor.
			CAS Chemical Abstracts Service.
			CLP Classification, Labelling and Packaging.
			CMR Carcinogen, Mutagen or Reproductive toxicant.
			COD Chemical Oxygen Demand.
			EC European Commission.
			EC50 Half maximal effective concentration.
			EH40 Resource containing the list of workplace exposure limits for use
			with the Control of Substances Hazardous to Health Regulations.
			EINECS European Inventory of Existing Commercial chemical
			Substances.
			ELINCS European List of Notified Chemical Substances.
			EU European Union.
			GHS Globally Harmonized System of Classification and Labelling of
			Chemicals.
			H Statement GHS Hazard statement.
			IATA International Air Transport Association.
			IBC Intermediate Bulk Container.
			IC50 Half maximal inhibitory concentration.
			IMDG International Maritime Dangerous Goods.
			LC50 Median lethal concentration.
			LD50 Median lethal dose.
			LogPow logarithm of the octanol/water partition coefficient.
			MARPOL 73/78 International Convention for the Prevention of
			Pollution From Ships, 1973 as modified by the Protocol of 1978.
			OEL Occupational Exposure Limit.
			OSHA Occupational Safety and Health Administration (USA).
			PBT Persistent, Bioaccumulative, and Toxic.
			PEL Permissible Exposure Limit.
			RID The Regulations concerning the International Carriage of
			Dangerous Goods by Rail.
			SADT Self-Accelerating Decomposition Temperature.
			SARA Superfund Amendments and Reauthorization Act.
			SCBA Self-Contained Breathing Apparatus.
			SDS Safety Data Sheet.
			STOT Specific Target Organ Toxicity.
			STOT-RE Specific Target Organ Toxicity - Repeated Exposure.
			STOT-SE Specific Target Organ Toxicity - Single Exposure.
			UN United Nations.
			USA United States of America.
			vPvB very Persistent very bioaccumulative.
16.1f	Full toy	t of hazard statements and/or precautionary	All statements were written out in full.
10.11		ents not written out in full elsewhere:	
DISCLA			ic material designated and may not be valid for such material used
DIGOLA			r in any process. Such information is, to the best of the company's
			le as of the date indicated. However, no warranty guarantee or
			liability, or completeness. It is the user's responsibility to satisfy
		himself as to the suitability of such inform	
		FI	ND OF SDS
END OF 3D3			

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 1 of 6

ImunoChemistry TECHNOLOGIESLLC

SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

1.1	Product identifier:	Hoechst 33342	
		HUECHSI 33342	
.1a	Other means of identification:	•	
.1b	Alternative product name(s)/ synonyms:	Hoechst stain, HS	
l.1c	Product number/Catalog #(s):	556, 639	
1.1d	Internal identification:	Hoechst stain; HS	
1.2	Relevant identified uses of the substance or mixture and uses advised against:	For research use only. Not for use in diagnostic procedures.	
1.2a	Brief description of what the substance or mixture is intended to do:	Cell permeant blue fluorescent stain typically used to visualize the nuclei of cells.	
1.3	Details of the supplier of the SDS:		
I.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)	
1.3b	Address:	9401 James Avenue South, Suite 155	
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA	
1.3d	Phone number:	1-800-829-3194 and 952-888-8788	
1.3e 1.3f	Fax number:	952-888-8988	
	Website: Email:	www.immunochemistry.com	
1.3g	Contact person at ICT:	help@immunochemistry.com Quality Documentation Department	
1.3h 1.4	Emergency telephone number:	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide;	
1.4		ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted	
Sectio	on 2: Hazards identification		
2.1	Classification of the substance or mixture:		
2.1a	Product is a:	Mixture.	
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Does not meet the criteria for classification.	
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Refer to Sections 9-12.	
2.2	Label elements:	None.	
2.2a	GHS label elements, including precautionary statements:	•	
2.2b	Contains:		
2.2c	Labeling in accordance with (EC) No. 1272/2008:	•	
2.2d	Hazard Pictograms (Hazard Symbols):	None.	
2.2e	Signal word:	None.	
2.2f	Hazard statements:	None.	
2.2g	Precautionary statements:	None.	
2.2h	Supplementary precaution statements:	None.	
2.3	Other hazards:	No additional information available.	
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.	
2.3b	Other hazards which do not result in classification:	Hoechst contains a low concentration of Bis benzimide H 33342	
		trihydrochloride (CAS 23491-52-3) which is below the threshold for	
		reporting. Hoechst is a suspected mutagen at high concentrations.	
		Prolonged skin contact may cause redness and irritation. Because of	
		the small quantity of product, the health hazard is small.	
	n 3: Composition/information on ingredients		
3.1	Substance:	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.	
3.2	Mixture:	Item is a mixture.	
	The chemical identity and concentration or		
	concentration ranges of all ingredients which are		
	hazardous and are present above their cut-off levels:		
	3.2a Chemical identity:	No ingredients identified for reporting in this section.	
Sectio	n 4: First aid measures		
4.1	Description of first aid measures:	If concerned, get medical attention/advice and provide physician with	

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 2 of 6

		ve: 05/12/2017; Supersedes: F17-556-2-C; Page 2 of 6	
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.	
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.	
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.	
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.	
4.2	Most important symptoms and effects, both acute and delayed:	Hoechst is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity of product, the health hazard is small.	
4.2a	Inhalation:	May cause coughing or mild irritation.	
4.2b	Skin contact:	Prolonged skin contact may cause redness and mild irritation.	
4.2c	Eye contact:	May cause temporary eye irritation.	
4.2d	Ingestion:	May cause discomfort if swallowed.	
4.3	Indication of any immediate medical attention and special treatment needed:	No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!	
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.	
Sectio	n 5: Firefighting measures		
5.1	Extinguishing media:	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.	
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.	
5.1b	Unsuitable extinguishing media:	None known.	
5.2	Special hazards arising from the substance or mixture:	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.	
5.2a	Hazardous combustion products:	None under normal conditions.	
5.2b	Unusual fire & explosion hazards: Protective measures in fire:	No unusual fire or explosion hazards noted.	
5.2c 5.3	Advice for firefighters:	Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other	
0.0	Advice for menginers.	ignition sources. No smoking.	
5.3a	Special firefighting procedures:	No specific firefighting procedure given.	
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
6.1	n 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures:	Use protective equipment appropriate for surrounding materials.	
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).	
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if	
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).	
6.2 6.3	Environmental precautions: Methods and materials for containment and clean up:	Do not allow to enter drains, sewers, or watercourses. Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see	

Hoechst 33342 SDS: Doc# F17-556-2-D: Effective: 05/12/2017: Supersedes: F17-556-2-C: Page 3 of 6

	Hoechst 33342 SDS; Doc# F17-556-2-D; Effec	
6.4	Reference to other sections:	 Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor. Refer to Sections 8 and 13 for additional information.
0	· 7. Handling and standing	
7.1	n 7: Handling and storage Precautions for safe handling:	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	Conditions for safe storage, including any incompatibilities:	Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	Specific end use(s):	For research use only. Not for use in diagnostic procedures.
Section		
Section 8.1	n 8: Exposure controls/personal protection Control parameters:	
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	Not available.
8.1b	Appropriate engineering controls:	· ·
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
8.2	Exposure controls:	
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c		
	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Provide adequate ventilation. Refer to Section 5 for additional information.
		Provide adequate ventilation.
8.2d 8.2e 8.2f	Reference to other sections: Eye/face protection: Skin protection:	Provide adequate ventilation. Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact.
8.2d 8.2e 8.2f 8.2g	Reference to other sections: Eye/face protection: Skin protection: Hand protection:	Provide adequate ventilation. Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact.
8.2d 8.2e 8.2f	Reference to other sections: Eye/face protection: Skin protection:	Provide adequate ventilation.Refer to Section 5 for additional information.Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.Wear apron or protective clothing in case of contact.Use suitable protective gloves if risk of skin contact.Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2d 8.2e 8.2f 8.2g 8.2h 8.2h	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection:	Provide adequate ventilation.Refer to Section 5 for additional information.Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.Wear apron or protective clothing in case of contact.Use suitable protective gloves if risk of skin contact.Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).Wear appropriate clothing to avoid skin contact.
8.2d 8.2e 8.2f 8.2g 8.2h 8.2h 8.2i 8.2j	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures:	 Provide adequate ventilation. Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to avoid skin contact. DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2d 8.2e 8.2f 8.2g 8.2h 8.2h 8.2i 8.2j 8.2j	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures: Thermal hazards:	Provide adequate ventilation.Refer to Section 5 for additional information.Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.Wear apron or protective clothing in case of contact.Use suitable protective gloves if risk of skin contact.Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).Wear appropriate clothing to avoid skin contact.DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated None known under normal conditions of use.
8.2d 8.2e 8.2f 8.2g 8.2h 8.2h 8.2h 8.2i 8.2j 8.2j 8.2k 8.2l	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures: Thermal hazards: Environmental exposure controls:	 Provide adequate ventilation. Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to avoid skin contact. DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2d 8.2e 8.2g 8.2g 8.2h 8.2h 8.2i 8.2j 8.2j 8.2k 8.2l Sectio	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures: Thermal hazards: Environmental exposure controls: 9: Physical and chemical properties	Provide adequate ventilation.Refer to Section 5 for additional information.Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.Wear apron or protective clothing in case of contact.Use suitable protective gloves if risk of skin contact.Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).Wear appropriate clothing to avoid skin contact.DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated None known under normal conditions of use.
8.2d 8.2e 8.2f 8.2g 8.2h 8.2h 8.2h 8.2i 8.2j 8.2j 8.2j 8.2k 8.2l Section 9.1	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures: Thermal hazards: Environmental exposure controls: n 9: Physical and chemical properties Information on basic physical and chemical properties:	Provide adequate ventilation. Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing. Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to avoid skin contact. DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated None known under normal conditions of use. Not determined.
8.2d 8.2e 8.2g 8.2g 8.2h 8.2h 8.2i 8.2j 8.2j 8.2k 8.2l Sectio	Reference to other sections: Eye/face protection: Skin protection: Hand protection: Respiratory equipment: Other protection: Hygiene measures: Thermal hazards: Environmental exposure controls: 9: Physical and chemical properties Information on basic physical and chemical	Provide adequate ventilation.Refer to Section 5 for additional information.Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.Wear apron or protective clothing in case of contact.Use suitable protective gloves if risk of skin contact.Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).Wear appropriate clothing to avoid skin contact.DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated None known under normal conditions of use.

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 4 of 6

1		tive: 05/12/2017; Supersedes: F17-556-2-C; Page 4 of 6
9.1d	pH:	3.0-5.0
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.11	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
	Solubility(ies):	
9.1n		Soluble in water.
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
Section	10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.2	Possibility of hazardous reactions:	Hazardous polymerization: will not polymerize.
10.3	Conditions to avoid:	
10.4		To avoid product degradation, avoid exposure to high temperatures or
40.5		direct sunlight or light.
10.5	Incompatible materials:	Strong oxidizing substances.
10.6	Hazardous decomposition products:	None under normal conditions.
	11: Toxicological information	
11.1	Information on toxicological effects:	
11.1a	Name:	Hoechst 33342
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Toxicological studies are not yet available. In vitro DNA repair and inhibition tests suggest mutagenic effects in mouse fibroblasts and hamster lung cells. Knowledge about health hazard is incomplete.
11.1 ~	Carainaganiaituu	Not determined.
11.1g	Carcinogenicity:	
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.11	Information on the likely routes of exposure	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
	(inhalation, ingestion, skin and eye contact):	
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory
		system and cause coughing.
11.10	Skin contact:	Liquid may irritate skin.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1p	Symptoms related to the physical, chemical and	No specific symptoms noted.
11.14		
11 1-	toxicological characteristics:	Net determined
11.1r	Delayed and immediate effects as well as chronic	Not determined.
	effects from short and long term exposure:	
11.1s	Numerical measures of toxicity (such as acute	Not determined.
	toxicity estimates):	
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1w	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research	Not classified.
	on Cancer (IARC):	
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	Hoechst is a suspected mutagen at high concentrations. Prolonged skin
		contact may cause redness and irritation. Because of the small quantity

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 5 of 6

Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	Hoechst 33342.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Not determined.
12.2	Persistence and degradability:	There are no data on the degradability of this product.
12.3	Bioaccumulative potential:	No data available on bioaccumulation.
12.4	Mobility in soil:	The product is soluble in water.
12.5	Results of PBT and vPvB assessment:	Not determined.
12.6	Other adverse effects:	No data available.
Section	n 13: Disposal considerations	
13.1	Waste treatment methods:	When handling waste, consideration should be made to the safety
		precautions applying to handling of the product.
13.1a	Description of waste residues and information on	Dispose of waste and residues in accordance with local authority
	their safe handling and methods of disposal,	requirements. For the safety of persons conducting disposal, recycling
	including the disposal of any contaminated	or reclamation activities, please refer to the information in Section 8
	packaging:	(exposure controls and personal protection) of the SDS.
Section	n 14: Transport information	
14.1	UN number:	Not applicable.
14.2	UN proper shipping name:	Not applicable.
14.3	Transport hazard class(es):	Not applicable.
14.4	Packing group:	Not applicable.
14.5	Environmental hazards:	•
14.5a	Is it environmentally dangerous according to UN	The product is not covered by these regulations.
	Model Regulations (IMDG Code, ADR, RID, and ADN)?:	
14.5b	Is it a marine pollutant according to the IMDG	No.
	code?:	· · ·
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of MARPOL and the IBC code:	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
Section 15.1	n 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance	•
15.1a	or mixture: Regional safety, health and environmental	
45.41	regulations specific for the product in question:	
15.1b	USA SARA Components (such as 302/311/313):	Not listed.
15.1c	USA Massachusetts Right to Know:	Not listed.
15.1d	USA Pennsylvania Right to Know:	Not listed.
15.1e	USA New Jersey Right to Know:	Not listed.
15.1f	USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}:	Not listed.
<u>15.1g</u> 15.1h	Annex XIV substances subject to authorization:	Not listed.
15.11 15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous
		for supply. Safety data sheets for substances and preparations dangerous
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1k 15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of
10.11		substances and mixtures {CLP Regulation}. EC 830/2015. Regulation
		(EC) No 1907/2006 of the European Parliament and of the Council of
		18 December 2006 concerning the Registration, Evaluation,
		Authorisation and Restriction of Chemicals (REACH), establishing a
		18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and
		18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission
		18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission
		18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC
15.2	Chemical safety assessment:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and
	Chemical safety assessment: Other regulatory information:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2a	Other regulatory information:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required.
15.2a Section	Other regulatory information:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required.
15.2a Section 16.1	Other regulatory information: 16: Other information Other information:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None.
16.1 16.1a	Other regulatory information: 16: Other information Other information: Date of revision:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None.
15.2a Section 16.1	Other regulatory information: 16: Other information Other information:	18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None.

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 6 of 6

Change	es made to the previous version of the SDS:	Reviewed and updated document control numbers.
		ACGIH American Conference of Governmental Industrial Hygienists.
		ADN European Provisions concerning the International Carriage of
		Dangerous Goods by Inland Waterway.
		ADR The European Agreement concerning the International Carriage
		of Dangerous Goods by Road.
		ATE Acute Toxicity Estimate.
		BCF Bio Concentration Factor.
		CAS Chemical Abstracts Service.
		CLP Classification, Labelling and Packaging.
		CMR Carcinogen, Mutagen or Reproductive toxicant.
		COD Chemical Oxygen Demand.
		EC European Commission.
		EC50 Half maximal effective concentration.
		EH40 Resource containing the list of workplace exposure limits for use
		with the Control of Substances Hazardous to Health Regulations.
		EINECS European Inventory of Existing Commercial chemical
		Substances.
		ELINCS European List of Notified Chemical Substances.
		EU European Union.
		GHS Globally Harmonized System of Classification and Labelling of
		Chemicals.
		H Statement GHS Hazard statement.
		IATA International Air Transport Association.
		IBC Intermediate Bulk Container.
		IC50 Half maximal inhibitory concentration.
		IMDG International Maritime Dangerous Goods.
		LC50 Median lethal concentration.
		LD50 Median lethal dose.
		LogPow logarithm of the octanol/water partition coefficient.
		MARPOL 73/78 International Convention for the Prevention of
		Pollution From Ships, 1973 as modified by the Protocol of 1978.
		OEL Occupational Exposure Limit.
		OSHA Occupational Safety and Health Administration (USA).
		PBT Persistent, Bioaccumulative, and Toxic.
		PEL Permissible Exposure Limit.
		RID The Regulations concerning the International Carriage of
		Dangerous Goods by Rail.
		SADT Self-Accelerating Decomposition Temperature.
		SARA Superfund Amendments and Reauthorization Act.
		SCBA Self-Contained Breathing Apparatus.
		SDS Safety Data Sheet.
		STOT Specific Target Organ Toxicity.
		STOT-RE Specific Target Organ Toxicity - Repeated Exposure.
		STOT-SE Specific Target Organ Toxicity - Single Exposure.
		UN United Nations.
		USA United States of America.
		vPvB very Persistent very bioaccumulative.
Full tex	t of hazard statements and/or precautionarv	All statements were written out in full.
		ic material designated and may not be valid for such material used
	in combination with any other materials o	r in any process. Such information is, to the best of the company's
		le as of the date indicated. However, no warranty guarantee or
		liability, or completeness. It is the user's responsibility to satisfy
	himself as to the suitability of such inform	
	Key/leg the SDS	Full text of hazard statements and/or precautionary statements not written out in full elsewhere: JIMER: This information relates only to the specifin combination with any other materials on knowledge and belief, accurate and reliab representation is made to its accuracy, re