

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

1.1	on 1: Identification of the substance/mixture and of the Product identifier:	· · · · · ·	Mily
		MR-(DEVD) <sub>2</sub>	
1.1a	Other means of identification:	•	
1.1b	Alternative product name(s)/ synonyms:		2, MR-DEVD, MR-{Asp(Ome)-Glu(Ome)-Val- -violet-DEVD, caspases 3&7 substrate, Magic Red ate
1.1c	Product number/Catalog #(s):	6131, 6132	
1.1d	Internal identification:	MR-(DEVD) <sub>2</sub> , MR-D Cresyl-violet-DEVD substrate	DEVD, MR-{Asp(Ome)-Glu(Ome)-Val-Asp(Ome)}2, , caspases 3&7 substrate, Magic Red caspase 3/7
1.2	Relevant identified uses of the substance or mixture and uses advised against:	For research use or	nly. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:	Enzyme substrate a	and caspase detection reagent.
1.3	Details of the supplier of the SDS:		
1.3a	Name:	ImmunoChemistry 7	Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenu	
1.3c	City, State, Zip, Country	Bloomington, MN 55	
1.3d	Phone number:	1-800-829-3194 and	d 952-888-8788
1.3e	Fax number:	952-888-8988	
1.3f	Website:	www.immunochemi	stry.com
1.3g	Email:	help@immunochem	nistry.com
1.3h	Contact person at ICT:	Quality Documentat	tion Department
1.4	Emergency telephone number:	ICT hours are 9 am (excluding holidays)	4 (USA & Canada) or 952-888-8788 world wide; -5 pm central time USA, Monday through Friday ). Chemtrec 24-hour access within USA and -9300 or +1 703-527-3887. Collect calls accepted.
	on 2: Hazards identification		
2.1	Classification of the substance or mixture:	Substance.	
2.1a 2.1b	Product is a: Classification according to (EC) No. 1272/2008		criteria for classification.
	{CLP}:		
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:	None.	
2.2b	Contains:	None.	
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 inform	nation 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:	No information avai	lable.
	on 3: Composition/information on ingredients	1	
3.1	Substance:	Item is a substance	
	3.1a Chemical identity:	MR-(DEVD) <sub>2</sub>	
	3.1b Common name, synonyms, etc.:	None.	0.44.01 (6.4)
	3.1c CAS number and	3.1e %	3.1f Classification according to (EC) No.
	other unique identifiers: 3.1d EC number: None. None.	Concentration: 100%	1272/2008 {CLP}: Not classified.
3 1 ~	Chemical identity of any impurity, stabilizing additive,	None known.	
3.1g	or individual constituent other than the main constituent, which is itself classified and which contributes to the classification (such as product identifier, trade name, identification numbers):	NOTE KNOWN.	
3.1h	Other information on the substance:	None.	

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	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. 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:	
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.
Section	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 <b>5.2</b>	Unsuitable extinguishing media:  Special hazards arising from the substance or mixture:	None known.  Product is not explosive. No dangerous reactions known under normal
5.2a	Hazardous combustion products:	conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ). None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c <b>5.3</b>	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 5.3b	Special firefighting procedures: Special protective equipment and precautions for firefighters:	No specific firefighting procedure given.  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	on 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).

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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.
		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.
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	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:	g and a g and a g and a g a g a g a g a g a g a g a g a g a
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	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
7.2	Specific and use(s):	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	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.
0.4.1	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
0.00	Ventilation controls:	workstation location.
8.2c		Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.  Wear approved chemical safety goggles where eye exposure is
8.2e	Eye/face protection:	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
0.2.7		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
0.01	The same of the second of	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.
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	n 9: Physical and chemical properties Information on basic physical and chemical	
9.1	properties:	•
9.1a	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.
9.1I	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.
9.15 9.1t	Oxidizing properties:	Not determined.  Not determined.
9.10 <b>9.2</b>	Other information:	None.
9.2a	Other information.  Other physical or chemical parameters:	None.
J.2a	Other physical of chemical parameters.	INOTIG.
Section	n 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: no data available.
10.4	Conditions to avoid:	To avoid product degradation, avoid exposure to high temperatures or
10.4	Conditions to avoid.	direct sunlight or light.
10.5	Incompatible materials:	No data available.
10.6	Hazardous decomposition products:	None under normal conditions.
10.0	riazardous decomposition products.	None under normal conditions.
Section	n 11: Toxicological information	
	Information on toxicological effects:	
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		MR-(DEVD) <sub>2</sub>
11.1a	Name:	MR-(DEVD) <sub>2</sub>
11.1a 11.1b	Name: Acute toxicity:	Not determined.
11.1a 11.1b 11.1c	Name: Acute toxicity: Skin corrosion/irritation:	Not determined. Not determined.
11.1a 11.1b 11.1c 11.1d	Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation:	Not determined. Not determined. Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e	Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization:	Not determined. Not determined. Not determined. Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f	Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity:	Not determined. Not determined. Not determined. Not determined. Not determined. Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g	Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity:	Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h	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 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i	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 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1l	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1l	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. In high concentrations, dust may irritate throat and respiratory system
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1l	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:	Not determined. In determined. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1i 11.1k 11.1l	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:	Not determined. In 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l	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:	Not determined. 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1i 11.1n 11.1n 11.1n	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	Not determined. In 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l 11.1n 11.1n	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:	Not determined. In this 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l 11.1n 11.1n	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	Not determined. 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l 11.1n 11.1n 11.1n	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:	Not determined. 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 determined. Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1i 11.1h 11.1n 11.1n 11.1n	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	Not determined. In this 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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1,1i	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):	Not determined. 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 determined. Not determined. Not determined. Not determined.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1,1i 11.1i 11.1,1i	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:	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.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1,1i 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n	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. No specific symptoms noted.  Not determined.  Not determined.  Not determined. Not applicable.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1,1i 11.1h 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n	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 applicable. Not applicable.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n 11.1s 11.1t 11.1c	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:	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 applicable. Not applicable. Not applicable.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1i 11.1n 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n 11.1n 11.1c 11.1s 11.1c 11.1s	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 determined. Not determined. Not applicable. Not applicable. Not applicable. Not applicable. Not classified.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1j 11.1h 11.1i 11.1,1i 11.1n 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n 11.1c	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): 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 determined.  Not determined.  Not applicable. Not applicable. Not applicable.
11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1i 11.1n 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n 11.1c 11.1s 11.1t 11.1c 11	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): Classification by International Agency for Research on Cancer (IARC):	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 applicable. Not applicable. Not classified. Not classified.
11.1a 11.1b 11.1c	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): Classification by OSHA 13:	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 applicable. Not applicable. Not applicable. Not applicable. Not classified.

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Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	MR-(DEVD) <sub>2</sub> .
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.
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.
	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:	N
14.5a	Is it environmentally dangerous according to UN	No.
	Model Regulations (IMDG Code, ADR, RID, and	
44.51	ADN)?:	N
14.5b	Is it a marine pollutant according to the IMDG	No.
44.0	code?:	Nega Ingaria
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of	Not applicable.
447	MARPOL and the IBC code:	T
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	n 15: Regulatory information	
15.1	Safety, health and environmental	
13.1	regulations/legislation specific for the substance	•
	or mixture:	
15.1a	Regional safety, health and environmental	None known.
10.14	regulations specific for the product in question:	THORE KHOWII.
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}:	
15.1g	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
. 5 ,	TEL STANDON OF PROGRESS	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
. 5		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.
	Other regulatory information:	None.
15.2a		1
15.2a		
	n 16: Other information	
Section	n 16: Other information	26-May-2017
Section 16.1	n 16: Other information Other information:	26-May-2017 F17-6131-2-C
<b>Section 16.1</b> 16.1a	n 16: Other information Other information: Date of revision:	

	<u>N</u>	lagic Red-(DEVD)2 SDS; Doc# F17-6131-2-C; Effe	ective: 05/26/2017; Supersedes: F17-6131-2-B; Page 6 of 6
16.1d		es made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/leg	end to abbreviations and acronyms used in	ACGIH American Conference of Governmental Industrial Hygienists.
	the SDS	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 - Single Exposure.
			UN United Nations.
			USA United States of America.
			vPvB very Persistent very bioaccumulative.
16.1f	Full tex	t of hazard statements and/or precautionary	All statements were written out in full.
10.11		ents not written out in full elsewhere:	7 iii otatomonto woro writtori out iri iuli.
DISCLA	AIMER:		fic material designated and may not be valid for such material used
			ir 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	
		as is the same same, or saon inform	

#### END OF SDS



# 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 the Product identifier:	
		Hoechst 33342
1.1a	Other means of identification:	
1.1b	Alternative product name(s)/ synonyms:	Hoechst stain, HS
1.1c	Product number/Catalog #(s):	556, 639
1.1d	Internal identification:	Hoechst stain; HS
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	Cell permeant blue fluorescent stain typically used to visualize the
	intended to do:	nuclei of cells.
1.3	Details of the supplier of the SDS:	1145101 01 001101
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.
	n 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.
	{CLP}:	
2.1c	The most important adverse physiochemical, human	Refer to Sections 9-12.
	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:	
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.
	Other hazards:	No additional information available.
<b>2.3</b> 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.
C	n 2. Composition/information on in an illanta	
	on 3: Composition/information on ingredients	Here to a minture than to a C.
3.1	Substance:	Item is a mixture therefore Section 3.1 is not applicable; see Section
	N	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	
Sectio 4.1	on 4: First aid measures  Description of first aid measures:	If concerned, get medical attention/advice and provide physician with
		If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never

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4.1a 4.1b	Inhalation:	
4.1b	minalation.	Remove to fresh air and keep at rest in a comfortable position for
4.1b		breathing. If not breathing, give artificial respiration. Rinse nose and
4.1b		mouth with water. Get medical attention if any discomfort continues.
4.10	Older and act	
	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	Typ contact:	
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
4.1u	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	Hoechst is a suspected mutagen at high concentrations. Prolonged
	and delayed:	skin contact may cause redness and irritation. Because of the small
	and delayed.	
		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	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
+.Ja	riotes to physician/instresponder.	
		protective equipment.
Section	n 5: Firefighting measures	
5.1	Extinguishing media:	This product is not flammable. Use fire-extinguishing media
•••	=xangaloning modula	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	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
	Address for in origination	
J.J		ignition courses. No smoking
	0 :15 515	ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
	Special firefighting procedures:  Special protective equipment and precautions for	
5.3a	Special protective equipment and precautions for	No specific firefighting procedure given.  Wear full protective clothing, including self-contained breathing
5.3a		No specific firefighting procedure given.  Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards
5.3a	Special protective equipment and precautions for	No specific firefighting procedure given.  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
5.3a	Special protective equipment and precautions for	No specific firefighting procedure given.  Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards
5.3a 5.3b	Special protective equipment and precautions for firefighters:	No specific firefighting procedure given.  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
5.3a 5.3b <b>Sectior</b>	Special protective equipment and precautions for firefighters:  6: Accidental release measures	No specific firefighting procedure given.  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.
5.3a 5.3b	Special protective equipment and precautions for firefighters:	No specific firefighting procedure given.  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.
5.3a 5.3b <b>Sectior</b>	Special protective equipment and precautions for firefighters:  6: Accidental release measures Personal precautions, protective equipment, and	No specific firefighting procedure given.  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
5.3a 5.3b Section 6.1	Special protective equipment and precautions for firefighters:  6: Accidental release measures  Personal precautions, protective equipment, and emergency procedures:	No specific firefighting procedure given.  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.  Use protective equipment appropriate for surrounding materials.
5.3a 5.3b <b>Sectior</b>	Special protective equipment and precautions for firefighters:  6: Accidental release measures Personal precautions, protective equipment, and	No specific firefighting procedure given.  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.  Use protective equipment appropriate for surrounding materials.  No specific emergency measures are required other than good
5.3a 5.3b Section 6.1	Special protective equipment and precautions for firefighters:  6: Accidental release measures  Personal precautions, protective equipment, and emergency procedures:	No specific firefighting procedure given.  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.  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
5.3a 5.3b Section 6.1	Special protective equipment and precautions for firefighters:  6: Accidental release measures  Personal precautions, protective equipment, and emergency procedures:	No specific firefighting procedure given.  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.  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
5.3a 5.3b Section 6.1	Special protective equipment and precautions for firefighters:  6: Accidental release measures  Personal precautions, protective equipment, and emergency procedures:	No specific firefighting procedure given.  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.  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
5.3a 5.3b <b>Section</b> <b>6.1</b>	Special protective equipment and precautions for firefighters:  6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures:	No specific firefighting procedure given.  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.  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).
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5.3a 5.3b Section 6.1 6.1a	Special protective equipment and precautions for firefighters:  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:	No specific firefighting procedure given.  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.  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).
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Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-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 vapor. Reference to other sections: Refer to Sections 8 and 13 for additional information. 6.4 Section 7: Handling and storage Do not handle until all safety precautions have been read and 7.1 Precautions for safe handling: 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 Do not eat, drink, or smoke in work areas. Wash hands after use. Advice on general occupational hygiene: 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 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. Section 8: Exposure controls/personal protection Control parameters: 8.1 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. Ventilation controls: Provide adequate ventilation. 8.2c 8.2d Reference to other sections: Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is 8.2e Eye/face protection: reasonably probable or face shield if risk of splashing. 8.2f Skin protection: Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. 8.2g Hand protection: 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 Wear appropriate clothing to avoid skin contact. Other protection: 8.2j DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift Hygiene measures: 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 None known under normal conditions of use. Thermal hazards: 8.21 Environmental exposure controls: Not determined. Section 9: Physical and chemical properties 9.1 Information on basic physical and chemical

Liquid; clear light yellow.

No characteristic odor.

Not determined.

properties:

Odor threshold:

Odor:

Appearance (physical state, color, etc.):

9.1a

9.1b

9.1c

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0.4.1		100: 05/12/2017; Supersedes: F17-336-2-C; Page 4 01 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.
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.
0.24	Carlot physical of chomical parameters:	1101101
Conti-	10. Stability and reactivity	
	10: Stability and reactivity	1.0
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Hazardous polymerization: will not polymerize.
10.3	Conditions to avoid:	
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.
10.0	riazarada addompodition producto.	Trono ando nomal conditions.
	. 44	
	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:	
11.11	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.
11.1g	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
		system and cause coughing.
44.4	Obia santasti	
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.
٠٩	toxicological characteristics:	
44.4	Deleved and increase " " " " " " " " " " " " " " " " " " "	Not 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):	
44.41		Net determined
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
	Mixtures:	Item is a mixture.
11.10		See Section 3 for any substances in the mixture.
11.1v	Mixtura ve substance information:	
11.1w	Mixture vs. substance information:	
11.1w 11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1w		
11.1w 11.1x	Classification by National Toxicity Program (NTP): Classification by International Agency for Research	Not classified.
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC):	Not classified. Not classified.
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not classified.  Not classified.  Not classified.
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC):	Not classified.  Not classified.  Not classified.  Hoechst is a suspected mutagen at high concentrations. Prolonged skin
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not classified.  Not classified.  Not classified.  Hoechst is a suspected mutagen at high concentrations. Prolonged skin
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not classified.  Not classified.  Not classified.  Not classified.  Hoechst is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not classified.  Not classified.  Not classified.  Hoechst is a suspected mutagen at high concentrations. Prolonged skin
11.1w 11.1x 11.1y	Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): Classification by OSHA 13:	Not classified.  Not classified.  Not classified.  Not classified.  Hoechst is a suspected mutagen at high concentrations. Prolonged skin contact may cause redness and irritation. Because of the small quantity

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	Hoechst 33342 SDS; Doc# F17-556-2-D; Effect	170, 90, 12, 20 11, 04,00100400, 1 11-000-2-0, 1 446 0 01 0
Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	Hoechst 33342.
12.1b	Ecotoxicity (aguatic 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.
	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 safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority 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	
14.1	UN number:	Not applicable.
14.1	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 Model Regulations (IMDG Code, ADR, RID, and ADN)?:	The product is not covered by these regulations.
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.
0		1 - comest outstand
Section	n 15: Regulatory information	- Common Cappinon
Section	15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental	
<b>Section 15.1</b> 15.1a	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:	
Section 15.1	15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental	Not listed.  Not listed.
<b>Section 15.1</b> 15.1a 15.1b	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: USA Pennsylvania Right to Know:	. Not listed.
15.1a 15.1b 15.1c 15.1d 15.1d 15.1d	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:  USA Pennsylvania Right to Know:  USA New Jersey Right to Know:	. Not listed. Not listed. Not listed. Not listed. Not listed. Not listed.
15.1a 15.1b 15.1c 15.1d 15.1c 15.1d 15.1e 15.1f	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:  USA Pennsylvania Right to Know:  USA New Jersey Right to Know:  USA California Prop. 65 Components:	Not listed. Not listed. Not listed.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g	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: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}:	. Not listed. Not listed. Not listed. Not listed. Not listed. Not listed. Not listed
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h	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: 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:	. Not listed.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i	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:  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:	. Not listed.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1i	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:  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:	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.
15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j	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:  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:	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.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1i	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:  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:	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.
15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1j 15.1h 15.1i 15.1j 15.1k 15.1l	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:  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:  Chemical safety assessment:  Other regulatory information:	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.
15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1s 15.1s 15.1c	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:  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:  Chemical safety assessment:  Other regulatory information:	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 2000/21/EC, including amendments.  Not required. None.
15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1s 15.1k 15.1l	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:  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:	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.  Not required. None.
15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1s 15.1s 15.1c	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:  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:  Chemical safety assessment:  Other regulatory information:	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 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 Reviewed and updated document control numbers. 16.1d Changes made to the previous version of the SDS: 16.1e Key/legend to abbreviations and acronyms used in 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.

16.1f Full text of hazard statements and/or precautionary statements not written out in full elsewhere:

All statements were written out in full.

vPvB very Persistent very bioaccumulative.

USA United States of America.

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.

UN United Nations.

**END OF SDS** 



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

1.1	Product identifier:	Acridine Orange
1.1a	Other means of identification:	7 torialité Grange
1.1b	Alternative product name(s)/ synonyms:	Acridine Orange, AO, Acridine Orange Stain, AOS
1.10 1.1c	Product number/Catalog #(s):	599, 6130
1.1d	Internal identification:	Acridine Orange; AO; Acridine Orange Stain; AOS
1.2	Relevant identified uses of the substance or	For research use only. Not for use in diagnostic procedures.
1.2	mixture and uses advised against:	To research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:	Orange/red fluorescent chelating dye typically used to stain 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.
Section	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 4, 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:	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:	Acridine Orange contains a concentration of 3,6-Acridinediamine, N,N,N',N'-Tetramethyl-, monohydrochloride (CAS 65-61-2, or CAS 494-38-2 free base) at less than 0.1% which is below the threshold for reporting. This product may be a potent mutagen at high concentrations and probable carcinogen. Because of the small quantity of product, the health hazard is small.
Section	on 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: The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.
	3.2a Chemical identity:	No ingredients identified for reporting in this section.
Section	on A. First aid magazine	
<u>Sectio</u>	n 4: First aid measures  Description of first aid measures:	If concerned, get medical attention/advice and provide physician with
<b>→.</b> 1	ביים וויים מוע ווויים מוע ווויים מוע ווויים שניים ביים וויים ביים וויים מוע ווויים מוע ו	SDS information. Wash contaminated clothing before re-use. Never

Acridine Orange SDS; Doc# F17-599-2-D; Effective: 02/10/2017; Supersedes: F17-599-2-C; Page 2 of 6

4 1a Inhalation: Remove to fresh air and keep at rest in a comfortable position for

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
1.1-	Fire contact:	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	Acridine Orange contains a concentration of 3,6-Acridinediamine,
	and delayed:	N,N,N',N'-Tetramethyl-, monohydrochloride (CAS 65-61-2, or CAS
		494-38-2 free base) at less than 0.1% which is below the threshold for
		reporting. This product may be a potent mutagen at high concentrations and probable carcinogen. 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 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.
	special treatment needed.	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	on 5: Firefighting measures	
5.1	Extinguishing media:	This product is not flammable. Use fire-extinguishing media
<b>5</b> 4	0.711	appropriate for the surrounding materials.
5.1a 5.1b	Suitable extinguishing media: Unsuitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.  None known.
5.10	Special hazards arising from the substance or mixture:	This product is a liquid and is not flammable. Product is not explosive.
	Special hazards arising from the substance or	This product is a liquid and is not flammable. Product is not explosive.  No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO),
5.2	Special hazards arising from the substance or mixture:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under
<b>5.2</b> 5.2a	Special hazards arising from the substance or mixture:  Hazardous combustion products:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.
5.2a 5.2a	Special hazards arising from the substance or mixture: Hazardous combustion products:  Unusual fire & explosion hazards:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use. In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.  No unusual fire or explosion hazards noted.
5.2a 5.2b 5.2c	Special hazards arising from the substance or mixture: Hazardous combustion products:  Unusual fire & explosion hazards: Protective measures in fire:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.  No unusual fire or explosion hazards noted.  Use protective equipment appropriate for surrounding materials.
5.2a 5.2a	Special hazards arising from the substance or mixture: Hazardous combustion products:  Unusual fire & explosion hazards:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.  No unusual fire or explosion hazards noted.  Use protective equipment appropriate for surrounding materials.  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.2a 5.2b 5.2c 5.3 5.3a	Special hazards arising from the substance or mixture: Hazardous combustion products:  Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters:  Special firefighting procedures:	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.  No unusual fire or explosion hazards noted.  Use protective equipment appropriate for surrounding materials.  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  No specific firefighting procedure given.
5.2a 5.2b 5.2c 5.3	Special hazards arising from the substance or mixture:  Hazardous combustion products:  Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters:  Special firefighting procedures: Special protective equipment and precautions for	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.  In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; CO <sub>x</sub> ), and nitrous gases (NO <sub>x</sub> ). None under normal conditions.  No unusual fire or explosion hazards noted.  Use protective equipment appropriate for surrounding materials.  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  No specific firefighting procedure given.  Wear full protective clothing, including self-contained breathing
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		ctive: 02/10/2017; Supersedes: F17-599-2-C; 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.
		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.
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0	7. Handling and stoness	
	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.
11.14	mixtures:	Troid contact than choring acide and choring chalecter.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use.
7.10	Advice on general occupational hygiene.	
		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	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.
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Section	8: Exposure controls/personal protection	
8.1	Control parameters:	
8.1a	Occupational exposure limits, such as chemical	Not available.
0.1a		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.
0.10	protective equipment:	Troat giovos, protostivo goggios, and lab ocat.
8.1d	Safety symbols:	
0. IU	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
	3 3	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
0.26	Lyc/lace protection.	
0.04	Chin protection.	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).
0.0:	Other protection:	
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.
J.21		

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Information on basic physical and chemical properties:	Section	n 9: Physical and chemical properties	
properties: 1. Appearance (physical state, color, etc.): 1. Color threshold: 1. Appearance (physical state, color, etc.): 1. Appearance (physical state, etc.): 1. Appearance (physical etc.): 1. Appearance (physica			
9.15 Odor 9.16 Odor 9.16 Odor 9.16 Odor 9.16 Odor (responsible of the second of the se	_		
Signature   Society   So	9.1a		Liquid; clear red orange.
9.16 Mething point/reezing point (°C): Not determined. 9.17 Initial boiling point and boiling range: <a href="https://doi.org/10.1007/cg/2760 mm Hg">https://doi.org/10.1007/cg/2760 mm Hg</a> . 9.16 Initial boiling point and boiling range: <a href="https://doi.org/10.1007/cg/2760 mm Hg">https://doi.org/10.1007/cg/2760 mm Hg</a> . 9.17 Ishamsbilly (solid, gas): Not determined. 9.18 In Planmsbilly (solid, gas): Not applicable. 9.19 In Planmsbilly or explosive limits: Not applicable. 9.19 In Relative density. Not determined. 9.10 In Relative density. Not determined. 9.11 Vapor density (Air =1): Not determined. 9.12 In Relative density. Not determined. 9.13 In Relative density. Not determined. 9.14 Vapor density (Air =1): Not determined. 9.15 In Relative density. Not determined. 9.16 In Relative density. Not determined. 9.17 Viscosity: Not determined. 9.18 Explosive properties: Not determined. 9.19 Auto-ipnifion temperature (°C): Not determined. 9.10 Viscosity: Not determined. 9.10 Owdering properties: Not determined. 9.11 Owdering properties: Not determined. 9.12 Other information: None. 9.13 None. 9.14 Owdering properties: None. 9.15 None. 9.16 Other information: None. 9.16 Other information: None. 9.17 Viscosity: Not determined. 9.18 None. 9.19 Owdering properties: None. 9.10 Owdering properties: None. 9.10 Owdering properties: None. 9.11 Owdering properties: None. 9.12 Other information: None. 9.13 Owdering properties: None. 9.14 Owdering properties: None. 9.15 Owdering properties: None. 9.16 Owdering properties: None. 9.17 Owdering properties: None. 9.18 Owdering properties: None. 9.19 Owdering properties: None. 9.10 Owdering properties: None. 9.11 Owdering properties: None. 9.12 Other information: None. 9.13 Owdering properties: None. 9.14 Owdering properties: None. 9.15 Owdering properties: None. 9.16 Owdering properties: None. 9.17 Owdering properties: None. 9.18 Owdering properties: None. 9.19 Owdering properties: None. 9.10 Owdering properties: None. 9.11 Owdering properties: None. 9.12 Owdering properties:	9.1b		
Melting point/feezing point (**O):	9.1c	Odor threshold:	
1. Initial bolling point and boiling range:			

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		tive: 02/10/2017; Supersedes: F17-599-2-C; Page 5 of 6
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):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Acridine Orange contains a concentration of 3,6-Acridinediamine, N,N,N',N'-Tetramethyl-, monohydrochloride (CAS 65-61-2, or CAS 494-38-2 free base) at less than 0.1% which is below the threshold for reporting. CAS #65-61-2 which is not listed. CAS #494-38-2 is listed as Group 3 Not classifiable as to its carcinogenicity to humans; IARC Monograph Vol 16, Sup 7; 1987.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	Acridine Orange may be a potent mutagen at high concentrations and probable carcinogen. Because of the small quantity of product, the health hazard is small.
Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	Acridine Orange.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Not determined.
12.10	Persistence and degradability:	There are no data on the degradability of this product.
12.2	Bioaccumulative potential:	No data available on bioaccumulation.
12.3		
12.4	Mobility in soil:  Results of PBT and vPvB assessment:	The product is soluble in water.
		Not determined.
12.6	Other adverse effects:	No data available.
Section	n 13: Disposal considerations	
13.1	Waste treatment methods:	When handling waste, conisderation should be made to the safety
1		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.
	paonaging.	Toyboodic controls and belonial biotection) of the ODO.
Section	14: Transport information	
14.1	UN number:	Not applicable
		Not applicable.
14.2	UN proper shipping name:	Not applicable.
14.2 14.3	UN proper shipping name: Transport hazard class(es):	Not applicable. Not applicable.
14.2 14.3 14.4	UN proper shipping name: Transport hazard class(es): Packing group:	Not applicable.
14.2 14.3 14.4 14.5	UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards:	Not applicable. Not applicable. Not applicable
14.2 14.3 14.4	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.
14.2 14.3 14.4 14.5	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	Not applicable. Not applicable. Not applicable.
14.2 14.3 14.4 14.5 14.5a	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 No.
14.2 14.3 14.4 14.5 14.5a 14.5b	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.
14.2 14.3 14.4 14.5 14.5a	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	Not applicable. Not applicable. Not applicable No.
14.2 14.3 14.4 14.5 14.5a 14.5b	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  None known.  Not applicable.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	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 No. No.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  None known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  None known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  Nore known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  Nore known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b	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:	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  Nore known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section	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.  No.  No.  No.  No applicable.  The product is not considered a dangerous good for transport.  Contact supplier.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b	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	Not applicable.  Not applicable.  Not applicable.  No.  No.  No.  No.  None known.  Not applicable.  The product is not considered a dangerous good for transport.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1	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:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1	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.  No.  No.  No.  No.  Not applicable.  The product is not considered a dangerous good for transport.  Contact supplier.  Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a	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.  No.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  Not listed. Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a	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.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  Not listed. Not listed. Not listed. Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1e	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: USA Pennsylvania Right to Know:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1c 15.1d 15.1c 15.1d 15.1e	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:  USA Pennsylvania Right to Know:  USA New Jersey Right to Know:  USA California Prop. 65 Components:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  Not listed. Not listed. Not listed. Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g	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:  USA Pennsylvania Right to Know:  USA California Prop. 65 Components:  EU Regulation 1907/2006 {REACH}:	Not applicable. Not applicable. Not applicable No. No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  . Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1g 15.1h	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: USA Pennsylvania Right to Know: USA Pennsylvania Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.   Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1g 15.1h 15.1i	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:  USA Pennsylvania Right to Know:  USA Pennsylvania Right to Know:  USA California Prop. 65 Components:  EU Regulation 1907/2006 {REACH}:  Annex XIV substances subject to authorization:  Substances of very high concern:	Not applicable. Not applicable. Not applicable No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  .  Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1g 15.1h	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: USA Pennsylvania Right to Know: USA Pennsylvania Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport.  Contact supplier.   Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1g 15.1h 15.1i	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:  USA Pennsylvania Right to Know:  USA Pennsylvania Right to Know:  USA California Prop. 65 Components:  EU Regulation 1907/2006 {REACH}:  Annex XIV substances subject to authorization:  Substances of very high concern:	Not applicable. Not applicable. Not applicable No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.  .  Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1g 15.1h 15.1i	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:  USA Pennsylvania Right to Know:  USA Pennsylvania Right to Know:  USA California Prop. 65 Components:  EU Regulation 1907/2006 {REACH}:  Annex XIV substances subject to authorization:  Substances of very high concern:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.   Not listed.
14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1f 15.1f 15.1f 15.1j	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: USA Pennsylvania Right to Know: USA Pennsylvania 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:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.   Not listed.
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14.2 14.3 14.4 14.5 14.5a 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a 15.1b 15.1c 15.1d 15.1c 15.1f 15.1f 15.1f 15.1f 15.1i 15.1i 15.1i	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: USA Pennsylvania Right to Know: USA Pennsylvania 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:	Not applicable. Not applicable. Not applicable.  No.  No.  No.  None known. Not applicable.  The product is not considered a dangerous good for transport. Contact supplier.   Not listed.

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		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:			
16.1a	Date of revision:	10-Feb-2017		
16.1b	SDS number and revision:	F17-599-2-D		
16.1c	Supersedes SDS number and revision:	F17-599-2-C		
16.1d 16.1e	Changes made to the previous version of the SDS: Key/legend to abbreviations and acronyms used in the SDS:	Updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.  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 Inventory of Existing Commercial chemical Substances.  ELINCS European Inventory of Existing Commercial 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.  NBT Persistent, Bioaccumulative, and Toxic.  PET 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-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 text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.		
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