

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

1.1	on 1: Identification of the su Product identifier:		Calcein AM	
1.1a	Other means of identification	n·	Calcelli Aivi	
1.1b		ct name(s)/ synonyms:	Calcein AM lyophili	zed reagent
1.1c	Product number/0		6696	
1.1d	Internal identifica		Calcein AM	al. Not for one in diamentic annual and
1.2	Relevant identified uses of mixture and uses advised		For research use o	nly. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is		Green fluorescent	vital dye
4.0	intended to do:	L - 0D0		
1.3 1.3a	Details of the supplier of the SDS: Name:		ImmunoChomietry	Technologies LLC (ICT)
1.3b	Address:			Technologies, LLC (ICT) ue South, Suite 155
1.3c	City, State, Zip, C	ountry	Bloomington, MN 5	
1.3d	Phone number:	ountry	1-800-829-3194 an	
1.3e	Fax number:		952-888-8988	lu 332-000-0700
1.3f	Website:		www.immunochem	istry com
	Email:		help@immunocher	
1.3g		LICT:	Quality Documenta	
1.3h	Contact person a			
1.4	Emergency telephone nui	mber:	ICT hours are 9 am (excluding holidays	94 (USA & Canada) or 952-888-8788 world wide; n-5 pm central time USA, Monday through Friday s). Chemtrec 24-hour access within USA and 1-9300 or +1 703-527-3887. Collect calls accepted
Sectio	on 2: Hazards identification			
2.1	Classification of the subs	tance or mixture:		
2.1a	Product is a:		Substance.	
2.1b	Classification according to ({CLP}:	•	Does not meet the	criteria for classification.
2.1c	The most important adverse health, and environmental e		Refer to Sections 9	D-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		None.	
2.2e	Signal word:		None.	
2.2f	Hazard statements:		None.	
2.2g	Precautionary statements:		None.	
2.2h	Supplementary precaution s	statements:	None.	
2.3	Other hazards:		No additional inform	mation available.
2.3a	Does the chemical meet the	criteria for PBT or vPvR?	Not applicable.	
2.3b	Other hazards which do not		No information ava	ilable.
<u>Sectio</u> 3.1	on 3: Composition/informati Substance:	on on ingredients	Item is a substance	
J. 1	Substance.		nem is a substance	.
	3.1a Chemical identity:		Calcein AM	
	3.1b Common name, synon	yms, etc.:		ein O,O'-diacetate tetrakis (acetoxymethyl) ester,
		-	Calcein acetoxyme	
	3.1c CAS number and		3.1e %	3.1f Classification according to (EC) No.
	other unique identifiers:	3.1d EC number:	Concentration:	1272/2008 {CLP}:
	148504-34-1	Not applicable.	≥ 95% by HPLC	Not classified.
3.1g	Chemical identity of any imp	ourity, stabilizing additive,	None known.	
_	or individual constituent oth			
	constituent, which is itself c	assified and which		
	contributes to the classificat			
	identifier, trade name, ident			
	Other information on the su		Molecular Weight:	994.9 g/mol
3.1h	Other information on the su	usianice.	Wolcould Wolgitt.	

Calcein AM SDS; Doc# F17-6696-2-A; Effective: 07/26/16; Supersedes: None; Page 2 of 6 3.2 Mixture: Item is a substance, therefore Section 3.2 is not applicable; see The chemical identity and concentration or Section 3.1. concentration ranges of all ingredients which are hazardous and are present above their cut-off levels: Section 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. Due to the small packaging the risk of inhalation is minimal. Remove to 4.1a Inhalation: 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. Skin contact: 4.1b 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. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK 4.1d 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 and delayed: 4.2a Inhalation: May cause coughing or mild irritation. 4.2b Skin contact: Prolonged skin contact may cause mild irritation. Eye contact: 4.2c May cause temporary eye irritation. May cause discomfort if swallowed. 4.2d Ingestion: Indication of any immediate medical attention and No specific first aid measures noted, but first aid may still be required 4.3 special treatment needed: in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly! 4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Firefighting measures 5.1 **Extinguishing media:** Use fire-extinguishing media appropriate for the surrounding materials. 5.1a Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical powder, or carbon dioxide. 5.1b Unsuitable extinguishing media: None known. 5.2 Special hazards arising from the substance or No dangerous reactions known under normal conditions of use. Dust mixture: may have the potential to explode in the presence of an appropriate ignition source. Emits toxic fumes under fire conditions. Carbon oxides, Nitrogen oxides (NOx) 5.2a Hazardous combustion products: Emits toxic fumes under fire conditions. 5.2b Unusual fire & explosion hazards: Use protective equipment appropriate for surrounding materials. Protective measures in fire: 5.2c 5.3 Keep away from heat, hot surfaces, sparks, open flames and other Advice for firefighters: ignition sources. No smoking. No specific firefighting procedure given. Special firefighting procedures: 5.3a 5.3b Special protective equipment and precautions for Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards firefighters: in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: 6.1a General release measures: Wear suitable protective clothing, gloves and eye or face protection. Use in well-ventilated area. Avoid dust formation. Avoid all personal contact, including skin contact, eye contact, and inhalation of vapors, mist, or gas. Consult professional emergency personnel if concerned (see Section 8). Clean up spills immediately. Place in suitable, closed container for disposal. 6.1b No specific emergency measures are required other than good Advice for non-emergency personnel; personal

laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection to avoid contact with skin,

eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid

precautions, protective equipment and emergency

procedures:

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		breathing vapors, mist, or gas. Evacuate personnel to safe areas. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of
6.0	procedures:	emergency (also refer to Section 8). Do not allow to enter drains, sewers, or watercourses.
6.2	Environmental precautions: Methods and materials for containment and	Contain any spills with dikes or absorbent materials to prevent
0.3		
	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 vapor.
6.4	Reference to other sections:	Refer to Sections 8 and 13 for additional information.
		recent to occurre of and 10 for additional information.
Section 7.1	n 7: Handling and storage Precautions for safe handling:	Further processing of solid materials may result in the formation of
/	Precautions for safe flatfalling.	combustable dusts. The potential for combustable dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is
7.1a	Prevent handling of incompatible substances or	formed. Store away from oxidizing agents.
7.1a	mixtures:	Store away from oxidizing agents.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	Conditions for safe storage, including any incompatibilities:	Refer to product label. Store in cool place. Recommended storage temperature is -20 °C. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Protect material from long-term exposure to light. Avoid spills and release into the
7.3	Specific end use(s):	environment; keep away from watercourses. For research use only. Not for use in diagnostic procedures.
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Section	n 8: Exposure controls/personal protection	
8.1	Control parameters:	
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	Contains no substances with occupational exposure limit values.
8.1b	Appropriate engineering controls:	Ensure adequate ventilation, especially in confined areas. Respiratory
		protection should be considered if an adverse concentration of the substance in the air could occur.
8.1c	Individual protection measures, such as personal protective equipment:	Wear suitable protective gloves. Wear protective goggles. Wear lab coat with full coverage clothing. Respiratory protection may be appropriate in some circumstances.
8.1d	Safety symbols:	
8.2	Exposure controls:	
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Local exhaust ventilation is recommended for providing adequate ventilation. Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to section 5 for additional information.
8.2e	Eye/face protection:	Chemical goggles or safety glasses.
8.2f	Skin protection:	Wear suitable protective clothing. Wear long sleeves.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Respiratory protection is not required. Where excessive dust may
0.0	Other waste stiers	result, use NIOSH approved respiratory protection equipment.
8.2i	Other protection:	Wear appropriate clothing to prevent any possibility of skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash
0.01-	Thermal hexarder	promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known.

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8.2l Environmental exposure controls: Do not let product enter drains. Section 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties: 9.1a Appearance (physical state, color, etc.): White solid, 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 determined. 9.1h Evaporation rate: Not determined. 9.1i Flammability (solid, gas): Not determined. 9.1j Upper/lower flammability or explosive limits: Not determined. 9.1l Vapor density (Air =1): Not determined. 9.1m Relative density: Not determined. 9.1n Solubility(ies): Slightly water soluble; DMSO solubility or partition coefficient (N-octanol/water): Not determined. 9.1p Auto-ignition temperature (°C): Not determined. 9.1q Decomposition temperature (°C): Not determined.	
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9.1q Decomposition temperature (°C): Not determined.	
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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 information. 9.2a Other physical or chemical parameters: None.	
Other physical of offermout parameters.	
Section 10: Stability and reactivity	
10.1 Reactivity: No data available.	
10.2 Chemical stability: Stable under normal recommended	
10.3 Possibility of hazardous reactions: Carbon oxides and nitrogen oxides	
10.4 Conditions to avoid: To avoid product degradation, avoid	d exposure to high temperatures or
direct sunlight or light. 10.5 Incompatible materials: Strong oxidizing agents	
10.6 Hazardous decomposition products: Strong oxidizing agents None under normal conditions. Emit	ts toxic fumes under fire conditions
In the event of a fire: see section 5.	to toxic fames ander me conditions.
Section 11: Toxicological information	
11.1 Information on toxicological effects:	
11.1a Name: Calcein AM	
11.1b Acute toxicity: Not determined.	
11.1cSkin corrosion/irritation:Not determined.11.1dSerious eye damage/irritation:Not determined.	
11.1e Respiratory or skin sensitization: Not determined.	
11.1f Germ cell mutagenicity: Not determined.	
11.1g Carcinogenicity: Not determined.	
11.1h Reproductive toxicity: Not determined.	
Fig. 11 Not determined.	
11.1i STOT-single exposure: Not determined.	
11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.	
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11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.11.1kAspiration hazard:Not determined.11.1lInformation on the likely routes of exposure (inhalation, ingestion, skin and eye contact):11.1mIngestion:May be harmful if swallowed.11.1nInhalation:May be harmful by inhalation.11.1oSkin contact:May cause skin irritation in suscepti11.1pEye contact:May cause eye irritation with suscepti11.1qSymptoms related to the physical, chemical and toxicological characteristics:No specific symptoms noted.11.1rDelayed and immediate effects as well as chronic effects from short and long term exposure:Not determined.11.1sNumerical measures of toxicity (such as acute toxicity estimates):Not determined.11.1tInteractive effects:Not determined.	
11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.11.1kAspiration hazard:Not determined.11.1lInformation on the likely routes of exposure (inhalation, ingestion, skin and eye contact):11.1mIngestion:May be harmful if swallowed.11.1nInhalation:May be harmful by inhalation.11.1oSkin contact:May cause skin irritation in suscepti11.1pEye contact:May cause eye irritation with suscepti11.1qSymptoms related to the physical, chemical and toxicological characteristics:No specific symptoms noted.11.1rDelayed and immediate effects as well as chronic effects from short and long term exposure:Not determined.11.1sNumerical measures of toxicity (such as acute toxicity estimates):Not determined.11.1tInteractive effects:Not determined.11.1uAbsence of specific data:Not applicable.	
11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.11.1kAspiration hazard:Not determined.11.1lInformation on the likely routes of exposure (inhalation, ingestion, skin and eye contact):.11.1mIngestion:May be harmful if swallowed.11.1nInhalation:May be harmful by inhalation.11.1oSkin contact:May cause skin irritation in suscepti11.1pEye contact:May cause eye irritation with suscepti11.1qSymptoms related to the physical, chemical and toxicological characteristics:No specific symptoms noted.11.1rDelayed and immediate effects as well as chronic effects from short and long term exposure:Not determined.11.1sNumerical measures of toxicity (such as acute toxicity estimates):Not determined.11.1tInteractive effects:Not determined.11.1uAbsence of specific data:Not applicable.11.1vMixtures:Not applicable.	
11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.11.1kAspiration hazard:Not determined.11.1lInformation on the likely routes of exposure (inhalation, ingestion, skin and eye contact):.11.1mIngestion:May be harmful if swallowed.11.1nInhalation:May be harmful by inhalation.11.1oSkin contact:May cause skin irritation in suscepti11.1pEye contact:May cause eye irritation with suscepti11.1qSymptoms related to the physical, chemical and toxicological characteristics:No specific symptoms noted.11.1rDelayed and immediate effects as well as chronic effects from short and long term exposure:Not determined.11.1sNumerical measures of toxicity (such as acute toxicity estimates):Not determined.11.1tInteractive effects:Not determined.11.1uAbsence of specific data:Not applicable.	
11.1iSTOT-single exposure:Not determined.11.1jSTOT-repeated exposure:Not determined.11.1kAspiration hazard:Not determined.11.1lInformation on the likely routes of exposure (inhalation, ingestion, skin and eye contact):.11.1mIngestion:May be harmful if swallowed.11.1nInhalation:May be harmful by inhalation.11.1oSkin contact:May cause skin irritation in suscepti11.1pEye contact:May cause eye irritation with suscepti11.1qSymptoms related to the physical, chemical and toxicological characteristics:No specific symptoms noted.11.1rDelayed and immediate effects as well as chronic effects from short and long term exposure:Not determined.11.1sNumerical measures of toxicity (such as acute toxicity estimates):Not determined.11.1tInteractive effects:Not determined.11.1uAbsence of specific data:Not applicable.11.1wMixtures:Not applicable.11.1wMixture vs. substance information:Not applicable.	

Section 12 Classification by OSHA 13: Not classified.		Calcein AM SDS; Doc# F17-6696-2-A; Eff	fective: 07/26/16; Supersedes: None; Page 5 of 6
properties have not been thoroughly investigated. 2: Ecological Information			
Section 12: Ecological information 12.1 Toxicity: 12.19 Name: 12.2 Persistence and degradability: 13.2 Persistence and degradability: 13.4 Noticity in spirit. 13.5 Persistence and degradability: 13.6 Noticity in spirit. 13.6 Noticity in spirit. 13.7 Noticity in spirit. 13.8 Noticity in spirit. 13.9 Noticity in spirit. 13.1 Waste treatment methods: 13.1 Waste treatment methods: 13.1 Waste treatment methods: 13.1 Noticity in spirit. 13.1 Waste residues and information on their safe handling and methods of disposal, packaging: 13.1 Waste treatment methods: 13.1 Waste treatment methods: 13.2 Noticity in spirit. 13.3 Noticity in spirit. 13.4 Noticity in spirit. 13.4 Noticity in spirit. 13.5 Noticity in spirit. 13.6 Noticity in spirit. 13.6 Noticity in spirit. 13.6 Noticity in spirit. 13.7 Noticity in spirit. 13.8 Noticity in spirit. 13.9 Noticity in spirit. 13.1 Waste treatment methods: 13.1 Noticity in spirit. 13.2 Noticity in spirit. 13.3 Noticity in spirit. 13.4 Noticity in spirit. 13.4 Noticity in spirit. 13.5 Noticity in spirit. 13.6 Noticity in spirit. 13.7 Noticity in spirit. 13.8 Noticity in spirit. 13.9 Noticity in spirit. 13.1 Noticity in spirit. 13.1 Noticity in spirit. 13.2 Noticity in spirit. 13.3 Noticity in spirit. 13.4 Packing group: 14.5 Not spirit. 13.4 Packing group: 14.5 Noticity in spirit. 13.5 Noticity in spirit. 13.6 Noticity in spirit. 13.7 Noticity in spirit. 13.8 Noticity in spirit. 13.9 Noticity in spirit. 13.1 Noticity in spirit. 13.2 Noticity in spirit. 13.3 Noticity in spirit. 13.4 Noticity in spirit. 13.5 Noticity in spirit. 13.6 Noticity in spirit. 13.7 Noticity in spirit. 13.8 Noticity in spirit. 13.9 Noti	11.1ab	Other information:	
12.1a Name: 12.1b Isolate Calcain AM. 12.1b Ecotoxicity (squatic and terrestrial, where available) Not determined. 12.2 Persistence and degradability: 12.3 Bioaccumulative potential: 13.4 Mobility in soil and we've assessment: 14.5 Other adverse effects: 15.6 Other adverse effects: 15.7 Other adverse effects: 15.8 Other adverse effects: 15.1 Section 13: Disposal considerations 15.1 Section 14: Transport information on their safe handling and methods of disposal, including the disposal of any contaminated or recipantial and their safe handling and methods of disposal, including the disposal of any contaminated or recipantial and their safe handling and methods of disposal, including the disposal of any contaminated or recipantial and their safe handling and methods of disposal, including the disposal of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and methods of any contaminated or recipantial and their safe handling and personal protection of the safe handling and personal protection			properties have not been thoroughly investigated.
12.1a Name: 12.1b Intervention of the state of the safety process	Section	n 12: Ecological information	
12.16 Scotosciriy (aquatic and terrestrial, where available): There are no data on the degradability of this product.			
Persistence and degradability: There are no data on the degradability of this product.			Calcein AM.
No. data available on bioaccumulation.	12.1b	Ecotoxicity (aquatic and terrestrial, where available):	
Mobility in soil: No data available.			
12.5 Results of PBT and vPvB assesment: Not data available.			
Section 13: Disposal considerations 13.1 waste treatment methods: 13.1 Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: 13.1 Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: 13.1 The safe handling and methods of disposal, including the disposal of any contaminated packaging: 14.2 UN proper shipping name: 14.3 Transport information 14.4.1 UN number: 14.4.2 UN proper shipping name: 14.5 Packing group: 14.5 Particular disposal of any contaminated of the special production of the SDS. 14.6 Packing group: 14.5 Packing group: 14.5 Packing group: 14.5 Packing group: 14.5 Packing group: 14.6 Special precautions full by the special production of the special produ			
Section 13: Disposal considerations 13.11 Waste treatment methods: 13.1a Description of waste residues and information on the irrade handling and methods of disposal, including the disposal of any contaminated packaging: Section 14: Transport information 14.11 UN number: Not applicable. Not applicable. Not applicable. Not applicable. 14.5a Is revironmentally dangerous according to UN Model Regulations (IMDC Code, ADR, RID, and ADN)?: 14.5b Is it a marine pollutant according to HIMDG code? 14.7 Tonsport in bulk according to Annex II of MARPOL and the IBC code: 14.7 Other information 15.11 Safety, health and environmental regulations/spicial and environmental regulations/spicial and environmental regulations/spicial and environmental spicial spicial regulations/spicial and environmental spicial spicial regulations (MDC Scote): 15.10 USA Pernsylvania Right to Know: USA Pernsylvania Right to Know: 15.11 USA California Prop. 85 Components: USA Pernsylvania Right to Know: 15.12 USA Resistances of very high concern: 15.13 Cussification for other prop. 85 Components: 15.14 USA Pernsylvania Right to Know: 15.15 USA Pernsylvania Right to Know: 15.16 USA Pernsylvania Right to Know: 15.17 Substances of very high concern: 15.18 USA California Prop. 85 Components: 15.19 USA Pernsylvania Right to Know: 15.10 USA Pernsylvania Right to Know: 15.11 Substances of very high concern: 15.12 USA Galifornia Prop. 85 Components: Calcain O O'diacetate tetrakis (acetoxymethyl) ester; CAS-No. (Aspos.) Approved code of practice: Not cassified. The product no any components are identified. The product no any components are identified. The product on any components are identified. The product nor any components are identified			
13.1 Waste treatment methods:	12.0	Other adverse effects.	ino data available.
13.1 Waste treatment methods:	Section	n 13: Disposal considerations	
their safe handling and methods of disposal, including the disposal of any contaminated packaging: Section 14: Transport information 14:1 UN number: Not applicable. Not app		Waste treatment methods:	
including the disposal of any contaminated packaging: or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS. Section 14: Transport information 14: UN number: Not applicable. 14: UN proper shipping name: Not applicable. 14: A Pransport hazard class(es): Not applicable. 14: A Pransport hazard class(es): Not applicable. 14: Environmental hazards: Not applicable. Not applicable. 14: Environmental hazards: Not applicable. Not applicable. 14: Environmental hazards: Not applicable. Not applicable. Not applicable. 14: Environmental hazards: Not applicable. No	13.1a		
Section 14: Transport information			
Section 14: Transport information 14.1 UN number: Not applicable.			
14.1 Un number:		packaging.	(exposure controls and personal protection) of the SDS.
14.2 Un number:	Section	n 14: Transport information	
14.4 Packing group: Not applicable.			Not applicable.
14.5	14.2		
14.5a			
14.5a Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)? 14.5b Is it a marine pollutant according to the IMDG code? 14.6c Special precautions for user:			Not applicable.
Model Regulations (IMDĞ Code, ADR, RÎD, and ADN)?: 14.5b Is it a marine pollutant according to the IMDG code?: 14.6 Special precautions for user: 14.7 Transport in bulk according to Annex II of MARPOL and the IBC code: 14.7a Other information: 15.1 Classification for other modes of transport: Section 15: Regulatory information 15.1 Regional safety, health and environmental regulations/Regislation specific for the substance or mixture: 15.1a Regional safety, health and environmental regulations/Regislation specific for the substance or mixture: 15.1b USA SARA Components (such as 302/311/313): 15.1c USA Pennsylvania Right to Know: 15.1d USA Pennsylvania Right to Know: 15.1e USA New Jersey Right to Know: 15.1e USA New Jersey Right to Know: 15.1e USA California Prop. 65 Components: 15.1f USA California Prop. 65 Components: 15.1g EU Regulation 1907/2006 (REACH): 15.1l USA California Prop. 65 Components: 15.1l Usubstances of very high concern: 15.1l Usu			No.
14.5b Is it a marine pollutant according to the IMDG code?: 14.6 Special precautions for user: None known.	14.5a	Model Regulations (IMDG Code, ADR, RID, and	INO.
14.7a Classification for other modes of transport:	14.5b	Is it a marine pollutant according to the IMDG code?:	No.
MARPOL and the IBC code: 14.7a			
14.7a Other information: The product is not considered a dangerous good for transport.	14.7		Not applicable.
Section 15: Regulatory information	4470		The ward set is not considered a degree on a degree of the transport
Section 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Not classified. Regional safety, health and environmental regulations specific for the product in question: 15.1b USA SARA Components (such as 302/311/313): This product is not listed in the SARA (Superfund Amendments and Reauthorization Act). No components are subject to the Massachusetts Right to Know: No components are subject to the Massachusetts Right to Know Act. 15.1d USA Pennsylvania Right to Know: Calcein O, O'diacetate tetrakis (acetoxymethyl) ester; CAS-No. 148504-34-1 15.1e USA California Prop. 65 Components: This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm. 15.1g EU Regulation 1907/2006 (REACH): The product nor any components are identified. 15.1h Annex XIV substances subject to authorization: The product nor any components are identified. 15.1i Substances of very high concern: The product nor any components are identified. 15.1k Guidance notes: Workplace exposure limits EH40. EU legislation references: Workplace exposure limits EH40. EC) No. 1272/2008 on the classification, labelling and packaging of substances and preparations. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 comerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 799/45/EC and 2000/21/EC, including amendments.			
Safety, health and environmental regulations/legislation specific for the substance or mixture: Not classified.	11.70	Clacomodulor for other modes of transport.	Contact cuppinor.
regulations/legislation specific for the substance or mixture: 15.1a Regional safety, health and environmental regulations specific for the product in question: 15.1b USA SARA Components (such as 302/311/313): 15.1c USA Massachusetts Right to Know: 15.1d USA Pennsylvania Right to Know: 15.1e USA New Jersey Right to Know: 15.1f USA California Prop. 65 Components: 15.1g EU Regulation 1907/2006 (REACH): 15.1h Annex XIV substances subject to authorization: 15.1j Approved code of practice: 15.1k Guidance notes: 15.1k Guidance notes: 15.1l Use gislation references: 15.1l EU legislation references: 15.1l EU legislation references: 15.1l Regulation Regulation Regulation, EC 830/2015. Regulation, EC 830/2015. Regulation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 76/769/EEC and repealing Council Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and 2000/21/EC, including amendments.	Section	n 15: Regulatory information	
15.1a Regional safety, health and environmental regulations specific for the product in question: 15.1b USA SARA Components (such as 302/311/313): This product is not listed in the SARA (Superfund Amendments and Reauthorization Act). No components are subject to the Massachusetts Right to Know Act. 15.1c USA Massachusetts Right to Know: No components are subject to the Massachusetts Right to Know Act. 15.1d USA Pennsylvania Right to Know: Calcein O,O'diacetate tetrakis (acetoxymethyl) ester; CAS-No. 148504-34-1 15.1f USA California Prop. 65 Components: Calcein O,O'diacetate tetrakis (acetoxymethyl) ester; CAS-No. 148504-34-1 15.1g EU Regulation 1907/2006 {REACH}: This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm. 15.1g EU Regulation 1907/2006 {REACH}: The product nor any components are identified. 15.1i Annex XIV substances subject to authorization: The product nor any components are identified. 15.1i Approved code of practice: Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. 15.1k Guidance notes: (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 193/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/67/EEC, and 2000/21/EC, including amendments.	15.1		
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15.1b	15.1a		Not classified.
15.1d USA Pennsylvania Right to Know: 15.1e USA New Jersey Right to Know: 15.1f USA California Prop. 65 Components: 15.1g EU Regulation 1907/2006 {REACH}: 15.1l Annex XIV substances subject to authorization: 15.1j Approved code of practice: 15.1l Guidance notes: 15.1l	15.1b		
148504-34-1 15.1e USA New Jersey Right to Know: Calcein O,O'diacetate tetrakis (acetoxymethyl) ester; CAS-No. 148504-34-1 15.1f USA California Prop. 65 Components: This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm. 15.1g EU Regulation 1907/2006 {REACH}: The product nor any components are identified. 15.1h Annex XIV substances subject to authorization: The product nor any components are identified. 15.1i Substances of very high concern: The product nor any components are identified. 15.1j Aproved code of practice: Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. 15.1k Guidance notes: Workplace exposure limits EH40. 15.1l EU legislation references: (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}, EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.			
15.1f USA California Prop. 65 Components: This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm. The product nor any components are identified. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. EU legislation references: Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.		·	148504-34-1
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15.1h Annex XIV substances subject to authorization: 15.1i Substances of very high concern: 15.1j Approved code of practice: 15.1j Approved code of practice: 15.1k Guidance notes: 15.1l EU legislation references: 15.1l Regulation (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.		·	California to cause cancer and/or reproductive harm.
15.1i Substances of very high concern: The product nor any components are identified. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. EU legislation references: (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (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.			
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(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.	10.11	20 logiciation foroionoso.	
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.			(EC) No 1907/2006 of the European Parliament and of the Council of
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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.			
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.			
and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.			
2000/21/EC, including amendments.			
	15.2	Chemical safety assessment:	

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15.2a	Other regulatory information:	None.
Soction	16: Other information	
Section 16.1	Other information:	
6.1a	Date of revision:	07/26/16
6.1b	SDS number and revision:	F17-6696-2-A
6.1c	Supersedes SDS number and revision:	None.
	Changes made to the previous version of the SDS:	No previous versions. SDS formatted to comply with EC 1272/2008
16.1d 16.1e	Changes made to the previous version of the SDS: Key/legend to abbreviations and acronyms used in the SDS:	No previous versions. SDS formatted 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 us 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-RE Specific Target Organ Toxicity - Repeated Exposure. UN United Nations.
		USA United States of America.
		vPvB very Persistent very bioaccumulative.
16.1f	Full text of hazard statements and/or precautionary	All statements were written out in full.

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



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:	
		10X Cellular Assay Buffer
1.1a	Other means of identification:	
1.1b	Alternative product name(s)/ synonyms:	10X Cellular Assay Buffer, Cellular Assay Buffer, CellAB
1.1c	Product number/Catalog #(s):	6694, 6695
1.1d	Internal identification:	10X Cellular Assay Buffer, Cellular Assay Buffer, CellAB
1.2	Relevant identified uses of the substance or	For research use only. Not for use in diagnostic procedures.
1.0	mixture and uses advised against:	A 1 (6 1 1) 4 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.2a	Brief description of what the substance or mixture is	A buffered diluent for use in research laboratory techniques.
4.0	intended to do:	
1.3	Details of the supplier of the SDS:	ImmunoChemistry Technologies III C (ICT)
1.3a	Name: Address:	ImmunoChemistry Technologies, LLC (ICT)
1.3b		9401 James Avenue South, Suite 155
1.3c 1.3d	City, State, Zip, Country Phone number:	Bloomington, MN 55431-2500 USA 1-800-829-3194 and 952-888-8788
1.3u 1.3e		952-888-8988
1.3e 1.3f	Fax number: 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;
1.4	Emergency telephone number.	ICT hours are 9 am-5 pm central time USA, Monday through Friday
		(excluding holidays). Chemtrec 24-hour access within USA and
		Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.
Sectio	on 2: Hazards identification	
2.1	Classification of the substance or mixture:	
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008	Does not meet the criteria for classification.
	{CLP}:	
2.1c	The most important adverse physiochemical, human	Prolonged skin contact may cause redness and irritation. Refer to
	health, and environmental effects:	Sections 4, 9-12.
2.2	Label elements:	None.
2.2a	GHS label elements, including precautionary	
	statements:	
2.2b	Contains:	Contains ≤0.1% sodium azide.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	None
2.2d	Hazard Pictograms (Hazard Symbols):	None.
2.2e 2.2f	Signal word: Hazard statements:	None.
2.2I 2.2g		None.
2.2 <u>y</u> 2.2h	Precautionary statements:	None.
	Supplementary precaution statements:	No additional information available.
2.3 2.3a	Other hazards: Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	Contains sodium azide (NaN ₃ , CAS #26628-22-8; EC #247-852-1) at
2.00	Other riazards which do not result in classification.	≤0.1%, sodium chloride (NaCl, salt), and phosphates which are below
		the threshold for hazard classification, but may cause redness and
		irritation after prolonged exposure.
		The state of the s
Sectio	n 3: Composition/information on ingredients	
3.1	Substance:	Item is a mixture therefore Section 3.1 is not applicable; see Section
		3.2.
3.2	Mixture:	Item is a mixture.
	The chemical identity and concentration or	
	concentration ranges of all ingredients which are	
	hazardous and are present above their cut-off levels:	
	3.2a Chemical identity:	No ingredients identified for reporting in this section.
3.2u	Other information on the mixture:	None.
	n 4: First aid measures	
4.1	Description of first aid measures:	If concerned, get medical attention/advice and provide physician with
	T. Control of the Con	SDS information. Wash contaminated clothing before re-use. Never
		give anything to an unconscious person.

10X Cellular Assay Buffer SDS; Doc# F17-6694-2-B; Effective: 2017-05-19; Supersedes: F17-6694-2-A; Page 2 of 6

	10X Cellular Assay Buffer SDS; DOC# F17-6694-2-B; E	ttective: 2017-05-19; Supersedes: F17-6694-2-A; Page 2 of 6
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for
		breathing. If not breathing, give artificial respiration. Rinse nose and
		mouth with water. Get medical attention if any discomfort continues.
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes;
		continue to rinse for at least 15 minutes. Remove any contaminated
		clothing and shoes and wash thoroughly before reuse. Get medical
		attention if any discomfort continues.
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make
4.10	Lye contact.	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	Contains sodium azide, sodium chloride, and phosphates which are
	and delayed:	below the threshold for hazard classification, but may cause redness
		and irritation after prolonged exposure.
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
	· ·	protective equipment.
Section	on 5: Firefighting measures	
5.1	Extinguishing media:	This product is not flammable. Use fire-extinguishing media
0	Extinguioring modia.	appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
		None known.
5.1b	Unsuitable extinguishing media:	
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	Hazardous combustion products: Unusual fire & explosion hazards:	None under normal conditions. No unusual fire or explosion hazards noted.
	Hazardous combustion products:	None under normal conditions.
5.2b	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire:	None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials.
5.2b 5.2c	Hazardous combustion products: Unusual fire & explosion hazards:	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
5.2b 5.2c 5.3	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters:	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.
5.2b 5.2c 5.3 5.3a	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures:	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.
5.2b 5.2c 5.3	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for	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
5.2b 5.2c 5.3 5.3a	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures:	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 apparatus, if necessary. The product presents no special fire hazards
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5.2b 5.2c 5.3 5.3a 5.3b	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for firefighters: on 6: Accidental release measures	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 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.
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5.2b 5.2c 5.3 5.3a 5.3b Section 6.1 6.1a	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	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 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
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5.2b 5.2c 5.3 5.3a 5.3b Section 6.1 6.1a	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency	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 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
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5.2b 5.2c 5.3 5.3a 5.3b Section 6.1 6.1a 6.1c	Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Environmental precautions:	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 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). Do not allow to enter drains, sewers, or watercourses.

10X Cellular Assay Buffer SDS; Doc# F17-6694-2-B; Effective: 2017-05-19; Supersedes: F17-6694-2-A; Page 3 of 6 Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapour. 6.4 Refer to Sections 8 and 13 for additional information. Reference to other sections: Section 7: Handling and storage Precautions for safe handling: Do not handle until all safety precautions have been read and 7.1 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 Avoid contact with halogenated hydrocarbons, strong acids, strong Prevent handling of incompatible substances or mixtures: oxidizers, and metals. 7.1b Advice on general occupational hygiene: Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices. 7.2 Conditions for safe storage, including any Store in cool place. Keep container tightly closed in a dry and wellincompatibilities: 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. Wear protective goggles. protective equipment: 8.1d Safety symbols: 8.2 **Exposure controls:** 8.2a Process conditions: Provide eyewash station. 8.2b Engineering controls: Ensure that eyewash stations and safety showers are proximal to the workstation location. 8.2c Ventilation controls: Provide adequate ventilation. 8.2d Reference to other sections: Refer to Section 5 for additional information. 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). Wear appropriate clothing to avoid skin contact. 8.2i 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 Thermal hazards: None known under normal conditions of use. Environmental exposure controls: 8.21 Not determined. Section 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties: 9.1a Appearance (physical state, color, etc.): Liquid; colorless. 9.1b No characteristic odor. Odor: Odor threshold: Not determined. 9.1c

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9.1d	pH:	6.7-7.1
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.11	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.10	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
		Not determined. Not determined.
9.1t	Oxidizing properties:	
9.2	Other information:	None.
9.2a	Other physical or chemical parameters:	None.
	10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Hazardous polymerization: will not polymerize.
10.3	Conditions to avoid:	To avoid product degradation, avoid exposure to high temperatures or
10.4	Conditions to avoid.	
40 F	Incompatible metarials:	direct sunlight or light.
10.5	Incompatible materials:	Avoid contact with halogenated hydrocarbons, strong acids, strong
		oxidizers, and metals.
10.6	Hazardous decomposition products:	None under normal conditions.
Section	n 11: Toxicological information	
11.1	Information on toxicological effects:	
11.1a	Name:	10X Cellular Assay Buffer
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d		
	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.11	Information on the likely routes of exposure	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.11		ivialy effici by skill affulor eye contact, illitalation of vapors/fillstruust.
44.4	(inhalation, ingestion, skin and eye contact):	Many and discount of the state of
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory
		system and cause coughing.
11.1o	Skin contact:	Liquid may irritate skin and cause redness.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and	No specific symptoms noted.
• • • • • •	toxicological characteristics:	p
11.1r	Delayed and immediate effects as well as chronic	Not determined.
11.11		Not determined.
111-	effects from short and long term exposure:	Not determined
11.1s	Numerical measures of toxicity (such as acute	Not determined.
	toxicity estimates):	
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1w	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research	Not classified.
	on Cancer (IARC):	N
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.
Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	10X Cellular Assay Buffer.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	No data available.
14.10	Locionicity (aquatic and terrestrial, where available).	110 data available.

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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:	The product contains a substance (sodium azide ≤0.1%) that may
		cause long term adverse effects in the aquatic environment. However,
		at the concentrations present, this product does not need to be
		classified as hazardous for the environment, and the effects are not
		expected to be significant.
		,
Section	n 13: Disposal considerations	
13.1	Waste treatment methods:	When handling waste, conisderation should be made to the safety
	Tradio ir dainoni motilodo.	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
15.14	their safe handling and methods of disposal,	requirements. For the safety of persons conducting disposal, recycling
	including the disposal of any contaminated	or reclamation activities, please refer to the information in Section 8
	packaging:	(exposure controls and personal protection) of the SDS.
0	44 7	
	n 14: Transport information	1
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:	The product contains a substance (sodium azide ≤0.1%) that may
_		cause long term adverse effects in the aquatic environment. However,
		at the concentrations present, this product does not need to be
		classified as hazardous for the environment, and the effects are not
		expected to be significant.
14.5a	Is it environmentally dangerous according to UN	No.
1 4 .5a	Model Regulations (IMDG Code, ADR, RID, and	INO.
44.50	ADN)?:	N.
14.5b	Is it a marine pollutant according to the IMDG	No.
	code?:	
14.6	Special precautions for user:	None known.
14.7	Transport in bulk according to Annex II of	Not applicable.
	MARPOL and the IBC code:	
14.7a	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	•
45.4	or mixture:	
15.1a	Regional safety, health and environmental	•
	regulations specific for the product in question:	
15.1b	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.
15.1c		
15.1d	USA Massachusetts Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
	USA Pennsylvania Right to Know:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed.
15.1d 15.1e		Sodium azide (CAS # 26628-22-8) is listed.
	USA Pennsylvania Right to Know:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed.
15.1e 15.1f	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed.
15.1e 15.1f 15.1g	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed.
15.1e 15.1f 15.1g 15.1h	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed.
15.1e 15.1f 15.1g 15.1h 15.1i	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed.
15.1e 15.1f 15.1g 15.1h	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous
15.1e 15.1f 15.1g 15.1h 15.1i 15.1j	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
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15.1e 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l	USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references:	Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
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10.15		Effective: 2017-05-19; Supersedes: F17-6694-2-A; Page 6 of 6
16.1a	Date of revision:	2017-05-19
16.1b	SDS number and revision:	F17-6694-2-B
16.1c 16.1d 16.1e	Supersedes SDS number and revision: Changes made to the previous version of the SDS: Key/legend to abbreviations and acronyms used in the SDS:	Reviewed and updated document control numbers. ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IG50 Half maximal inhibitory concentration. IBC Intermediate Bulk Container. IG50 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-SE Specific Target Organ Toxicity - Repeated Exposure. UN United Nations.
		USA United States of America.
		vPvB very Persistent very bioaccumulative.
16.1f	Full text of hazard statements and/or precautionary	All statements were written out in full.
	statements not written out in full elsewhere:	
DISCLA		fic material designated and may not be valid for such material used

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



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.
2.3 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 andi-	
	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
	No. 4	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 Sectior	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.
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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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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.
	Relative density:	
9.1m		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.
3.2a	Other physical of chemical parameters.	None.
	40.00 1 1111	
	10: Stability and reactivity	
10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Hazardous polymerization: will not polymerize.
	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.
.0.0	Tidada do do composition productor	Trene and trental conditions.
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	11: Toxicological information	
11.1	Information on toxicological effects:	•
11.1a	Name:	Hoechst 33342
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Toxicological studies are not yet available. In vitro DNA repair and
		inhibition tests suggest mutagenic effects in mouse fibroblasts and
		hamster lung cells. Knowledge about health hazard is incomplete.
11.1g	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.
		May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11 1m	(inhalation, ingestion, skin and eye contact):	
11.1m	(inhalation, ingestion, skin and eye contact): Ingestion:	May cause discomfort if swallowed.
11.1m 11.1n	(inhalation, ingestion, skin and eye contact):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory
11.1n	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
	(inhalation, ingestion, skin and eye contact): Ingestion:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin.
11.1n 11.1o	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin.
11.1n 11.1o 11.1p	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting.
11.1n 11.1o	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin.
11.1n 11.10 11.1p 11.1q	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted.
11.1n 11.1o 11.1p	(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	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting.
11.1n 11.10 11.1p 11.1q	(inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted.
11.1n 11.10 11.1p 11.1q	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined.
11.1n 11.10 11.1p 11.1q	(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	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s	(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):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s 11.1t 11.1u	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s 11.1t 11.1u 11.1v	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w	(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:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x	(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):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified.
11.1n 11.1o 11.1p 11.1q 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w	(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	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture.
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y	(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):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified.
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y	(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):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified.
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y 11.1z	(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): Classification by OSHA 13:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified.
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y	(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):	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. Not classified. Not classified. Hoechst is a suspected mutagen at high concentrations. Prolonged skin
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y 11.1z	(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): Classification by OSHA 13:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. Not classified. Not classified. Not classified. Not classified. Prolonged skin contact may cause redness and irritation. Because of the small quantity
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y 11.1z	(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): Classification by OSHA 13:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. Not classified. Not classified. Hoechst is a suspected mutagen at high concentrations. Prolonged skin
11.1n 11.1o 11.1p 11.1r 11.1s 11.1t 11.1u 11.1v 11.1w 11.1x 11.1y 11.1z	(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): Classification by OSHA 13:	May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Liquid may irritate skin. Spray and vapor in the eyes may cause irritation and smarting. No specific symptoms noted. Not determined. Not determined. Not applicable. Item is a mixture. See Section 3 for any substances in the mixture. Not classified. Not classified. Not classified. Not classified. Not classified. Not classified. Prolonged skin contact may cause redness and irritation. Because of the small quantity

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Section	n 12: Ecological information	
12.1	Toxicity:	
12.1a	Name:	Hoechst 33342.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Not determined.
12.2	Persistence and degradability:	There are no data on the degradability of this product.
12.3	Bioaccumulative potential:	No data available on bioaccumulation.
12.4	Mobility in soil:	The product is soluble in water.
12.5	Results of PBT and vPvB assessment:	Not determined.
12.6	Other adverse effects:	No data available.
	40.51	
	13: Disposal considerations	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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	n 14: Transport information 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.
	15: Regulatory information	
15.1		
	Safety, health and environmental regulations/legislation specific for the substance or mixture:	
15.1a	regulations/legislation specific for the substance or mixture: Regional safety, health and environmental	
15.1a	regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question:	. Not listed.
	regulations/legislation specific for the substance or mixture: Regional safety, health and environmental	. Not listed. Not listed.
15.1a	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:	
15.1a 15.1b 15.1c 15.1d 15.1e	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.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f	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.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g	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
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h	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. 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 15.1i	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. 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 15.1i 15.1j	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. 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 15.1s 15.1k	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. 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.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j	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. 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 15.1s 15.1s 15.2 15.2a Section	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. 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.
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	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. 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.
15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1i 15.2 15.2a Section 16.1 16.1a	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: 16: Other information: Date of revision:	Not listed. Not listed. Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None.
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	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. 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.

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.

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UN United Nations.

END OF SDS