ImmunoChemistry TECHNOLOGIES LLC

SAFETY DATA SHEET (SDS)

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

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1	**Product identifier:**		pNPP 1-Component AP Microwell Substrate with Stabilizing Pellets
1.1a	Other means of identification:		.
1.1b		Alternative product name(s)/ synonyms:	SUBP; SUB5; pNPP 1-Component AP Microwell Substrate
1.1c		Product number/Catalog #(s):	3328, 6279
1.1d		Internal identification:	SUBP; SUB5
1.2	**Relevant identified uses of the substance or mixture and uses advised against:**		For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:		To amplify the alkaline phosphatase signal in laboratory assays.
1.3	**Details of the supplier of the SDS:**		.
1.3a		Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b		Address:	9401 James Avenue South, Suite 155
1.3c		City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d		Phone number:	1-800-829-3194 and 952-888-8788
1.3e		Fax number:	952-888-8988
1.3f		Website:	www.immunochemistry.com
1.3g		Email:	help@immunochemistry.com
1.3h		Contact person at ICT:	Quality Documentation Department
1.4	**Emergency telephone number:**		ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

Section 2: Hazards identification

2.1	**Classification of the substance or mixture:**		.
2.1a	Product is a:		Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:		Skin Irrit. 2 H315. Eye Dam. 1 H318. Carc. 2 H351. STOT RE 2 H373. Aquatic Chronic 3 H412.
2.1c	The most important adverse physiochemical, human health, and environmental effects:		Refer to Sections 9-12.
2.2	**Label elements:**		.
2.2a	GHS label elements, including precautionary statements:		.
2.2b		Contains:	Diethanolamine; Hydrogen chloride
2.2c	Labeling in accordance with (EC) No. 1272/2008:		.
2.2d	Hazard Pictograms (Hazard Symbols):		  GHS05 Corrosion. GHS08 Health hazard.
2.2e	Signal word:		Danger.
2.2f	Hazard statements:		H315 Causes skin irritation. H318 Causes serious eye damage. H351 Suspected of causing cancer. H373 May cause damage to organs (liver, kidneys) through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
2.2g	Precautionary statements:		P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/fume/gas/vapors/spray. P264 Wash hands, forearms and face thoroughly after handling. P273 Avoid release to the environment.

			P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 If exposed or concerned: Get medical advice/attention. P310 Immediately call a doctor. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see first aid instructions on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/container in accordance with all local, regional, national and international regulations.
2.2h	Supplementary precaution statements:		None.	
2.3	**Other hazards:**		No additional information available.	
2.3a	Does the chemical meet the criteria for PBT or vPvB?		Not applicable.	
2.3b	Other hazards which do not result in classification:		None under normal conditions.	
Section 3: Composition/information on ingredients				
3.1	**Substance:**		Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.	
3.2	**Mixture:** The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:		Item is a mixture.	
	3.2a Chemical identity:		Diethanolamine	
	3.2b Common name, synonyms, etc.:		$C_4H_{11}NO_2$	
	3.2c CAS number and other unique identifiers:	3.2d EC number:	3.2e % Concentration:	3.2f Classification according to (EC) No. 1272/2008 {CLP}:
	111-42-2	203-868-0	7-13%	Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation. Eye Dam. 1 H318 Causes serious eye damage. Carc. 2 H351 Suspected of causing cancer. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
3.2g	Other ingredient:		.	
	3.2h Chemical identity:		Hydrogen chloride	
	3.2i Common name, synonyms, etc.:		HCl, Hydrochloric acid	
	3.2j CAS number and other unique identifiers:	3.2k EC number:	3.2l % Concentration:	3.2m Classification according to (EC) No. 1272/2008 {CLP}:
	7647-01-0	231-595-7	0.1-1%	Skin Irrit. 2 H315 Causes skin irritation. Eye Dam. 1 H318 Causes serious eye damage STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
3.2u	Other information on the mixture:		None.	
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 reuse. Never give anything by mouth to an unconscious person.	
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 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 eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.	
4.1d	Ingestion:		NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical	

		attention if any discomfort continues.
4.2	**Most important symptoms and effects, both acute and delayed:**	Causes skin irritation. Causes serious eye damage. May cause damage to organs (liver, kidneys) through prolonged or repeated exposure. Suspected of causing cancer.
4.2a	Inhalation:	May cause respiratory irritation.
4.2b	Skin contact:	Causes skin irritation.
4.2c	Eye contact:	Causes serious eye damage.
4.2d	Ingestion:	May cause gastrointestinal irritation.
4.3	**Indication of any immediate medical attention and special treatment needed:**	No additional information available.
4.3a	Notes to physician/first responder:	Treat symptomatically.
Section 5: Firefighting measures		
5.1	**Extinguishing media:**	Use fire-extinguishing media appropriate for surrounding materials.
5.1a	Suitable extinguishing media:	Foam. Carbon dioxide. Dry powder. Water spray. Sand.
5.1b	Unsuitable extinguishing media:	Not known.
5.2	**Special hazards arising from the substance or mixture:**	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	Not known.
5.2b	Unusual fire & explosion hazards:	No dangerous reactions known under normal conditions of use.
5.2c	Protective measures in fire:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
5.3	**Advice for firefighters:**	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
5.3b	Special protective equipment and precautions for firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing appartus and protective suit (see Section 8).
Section 6: Accidental release measures		
6.1	**Personal precautions, protective equipment, and emergency procedures:**	.
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices.
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	Wear protective equipment as described in Section 8. Evacuate unnecessary personnel.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.
6.2	**Environmental precautions:**	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
6.3	**Methods and materials for containment and clean up:**	Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
6.4	**Reference to other sections:**	Refer to Sections 8 and 13 for additional information.
Section 7: Handling and storage		
7.1	**Precautions for safe handling:**	Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Not known.
7.1b	Advice on general occupational hygiene:	No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2	**Conditions for safe storage, including any incompatibilities:**	Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Store away from light. Avoid elevated temperatures. (2-8°C)
7.3	**Specific end use(s):**	For research use only. Not for use in diagnostic procedures.
Section 8: Exposure controls/personal protection		
8.1	**Control parameters:**	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure	Diethanolamine (111-42-2): ACGIH TWA (mg/m³) 1 mg/m³ inhalable fraction and vapor. OSHA PEL (TWA) (mg/m³) 15 mg/m³ vacated.

	limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	OSHA PEL (TWA) (ppm) 3 ppm vacated. Hydrogen chloride (7647-01-0): ACGIH Ceiling (ppm) 2 ppm. OSHA PEL (Ceiling) (mg/m³) 7 mg/m³. OSHA PEL (Ceiling) (ppm) 5 ppm.
8.1b	Appropriate engineering controls:	Ensure adequate ventilation, especially in confined areas.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves. Wear chemical goggles and face shield in combination. Wear labcoat with full coverage clothing.
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 and face shield must be worn in combination.
8.2f	Skin protection:	Lab coat. Wear suitable protective clothing. Wear long sleeves.
8.2g	Hand protection:	Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.
8.2h	Respiratory equipment:	Where excessive vapor, mist, or dust may 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 promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known.
8.2l	Environmental exposure controls:	Not determined.
Section 9: Physical and chemical properties		
9.1	**Information on basic physical and chemical properties:**	.
9.1a	Appearance (physical state, color, etc.):	Clear, light yellow, liquid with stabilizing pellets
9.1b	Odor:	Odorless.
9.1c	Odor threshold:	No data available.
9.1d	pH:	9.6-10.2
9.1e	Melting point/freezing point (˚C):	No data available.
9.1f	Initial boiling point and boiling range:	No data available.
9.1g	Flash point (˚C):	No data available.
9.1h	Evaporation rate:	No data available.
9.1i	Flammability (solid, gas):	No data available.
9.1j	Upper/lower flammability or explosive limits:	No data available.
9.1k	Vapor pressure:	No data available.
9.1l	Vapor density (Air =1):	No data available.
9.1m	Relative density:	No data available.
9.1n	Solubility(ies):	Water: 100%
9.1o	Partition coefficient (N-octanol/water):	No data available.
9.1p	Auto-ignition temperature (˚C):	No data available.
9.1q	Decomposition temperature (˚C):	No data available.
9.1r	Viscosity:	No data available.
9.1s	Explosive properties:	Not explosive.
9.1t	Oxidizing properties:	Not an oxidizer
9.2	**Other information:**	No additional information available.
9.2a	Other physical or chemical parameters:	No additional information available.
Section 10: Stability and reactivity		
10.1	**Reactivity:**	No dangerous reactions known under normal conditions of use.
10.2	**Chemical stability:**	Stable under recommended handling and storage conditions (see Section 7).
10.3	**Possibility of hazardous reactions:**	None known.

10.4	**Conditions to avoid:**	Light. Elevated temperatures. Moisture.
10.5	**Incompatible materials:**	Strong oxidizing agents. Strong Acids. Some metals.
10.6	**Hazardous decomposition products:**	Hazardous fumes of nitrous oxides (NOx) and carbon oxides. Phosphorus oxides.
Section 11: Toxicological information		
11.1	**Information on toxicological effects:**	.
11.1a	Name:	Diethanolamine; Hydrogen chloride
11.1b	Acute toxicity:	Diethanolamine (111-42-2): LD50 oral rat- 620 µl/kg. LD50 dermal rabbit 7640 µl/kg. ATE CLP (oral) 500.000 mg/kg body weight. Hydrogen chloride (7647-01-0): LD50 oral rat 700 mg/kg. LD50 dermal rabbit >5010 mg/kg. LC50 inhalation rat (ppm) 3124 ppm/1 h.
11.1c	Skin corrosion/irritation:	Causes skin irritation.
11.1d	Serious eye damage/irritation:	Causes serious eye damage.
11.1e	Respiratory or skin sensitization:	Not classified.
11.1f	Germ cell mutagenicity:	Not classified.
11.1g	Carcinogenicity:	Diethanolamine (111-42-2): IARC group- 2B - Possibly carcinogenic to humans. Hydrogen chloride (7647-01-0): IARC group 3 - Not classifiable.
11.1h	Reproductive toxicity:	Not classified.
11.1i	STOT-single exposure:	Not classified.
11.1j	STOT-repeated exposure:	May cause damage to organs (liver, kidneys) through prolonged or repeated exposure.
11.1k	Aspiration hazard:	Not classified
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	.
11.1m	Ingestion:	May cause gastrointestinal irritation.
11.1n	Inhalation:	May cause respiratory irritation.
11.1o	Skin contact:	Causes skin irritation.
11.1p	Eye contact:	Causes serious eye damage.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	No specific symptoms noted.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Suspected of causing cancer. May cause damage to target organs.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Diethanolamine: Group 2B Possibly carcinogenic to humans.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.
Section 12: Ecological information		
12.1	**Toxicity:**	.
12.1a	Name:	Diethanolamine; Hydrogen chloride.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Diethanolamine; Acute EC50 12mg/l (96 hour) - Algae Fresh Water Acute LC50 28.8 mg/l (48 hour) - Crustacea Fresh Water Acute LC50 2.15mg/l (48 hour) - Daphnia Fresh Water Acute LC50 2.64 mg/l (48 hour) - Daphnia Fresh Water Acute LC50 775 mg/l (96 hour) - Fish Bluegill Fresh Water
12.2	**Persistence and degradability:**	Not established.
12.3	**Bioaccumulative potential:**	Diethanolamine: 1.43 Log Pow (Low)
12.4	**Mobility in soil:**	No additional information available.
12.5	**Results of PBT and vPvB assessment:**	No information available.
12.6	**Other adverse effects:**	Harmful to aquatic life with long lasting effects.
Section 13: Disposal considerations		
13.1	**Waste treatment methods:**	When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit. Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.
Section 14: Transport information		
14.1	**UN number:**	Not applicable.
14.2	**UN proper shipping name:**	Not applicable.
14.3	**Transport hazard class(es):**	Not hazardous for transport.
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)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
14.6	**Special precautions for user:**	None.
14.7	**Transport in bulk according to Annex II of MARPOL and the IBC code:**	Not applicable.
14.7a	Other information:	None.
14.7b	Classification for other modes of transport:	Contact supplier.
Section 15: Regulatory information		
15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture:**	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	All chemical substances in this product are listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances Control Act) Inventory. Diethanolamine (111-42-2): Listed on the United States TSCA (Toxic Substances Control Act) inventory; RQ (Reportable quantity, section 304 of EPA's List of Lists): 100 lb. Hydrogen chloride (7647-01-0): Listed on the United States TSCA (Toxic Substances Control Act) inventory; RQ (Reportable quantity, section 304 of EPA's List of Lists): 5000 lb; Canada: No additional information available.
15.1b	USA SARA Components (such as 302/311/313):	SARA Section 311/312 Hazard Classes is: Delayed (chronic) health hazard immediate (acute) health hazard. Diethanolamine (111-42-2): SARA Section 311/312 Hazard Classes are: Immediate (acute) health hazard & delayed (chronic) health hazard. SARA Section 313 - Emission Reporting 1 % de minimis concentration. Hydrogen chloride (7647-01-0): Listed on United States SARA Section 313. SARA Section 302 Threshold Planning Quantity (TPQ): 500 lb. (gas only). SARA Section 313 - Emission Reporting: 1 % (acid aerosols including mists, vapors, gas, fog, and other airborne form of any particle size).
15.1c	USA Massachusetts Right to Know:	Diethanolamine (111-42-2) is listed on the U.S. Massachusetts Right To Know List. Hydrogen chloride (7647-01-0) is listed on the U.S. Massachusetts Right To Know List.
15.1d	USA Pennsylvania Right to Know:	Diethanolamine (111-42-2) is listed on the U.S. Pennsylvania Right To Know Environmental Hazard List. Hydrogen chloride (7647-01-0) is listed on the U.S. Pennsylvania Right To Know Environmental Hazard List.
15.1e	USA New Jersey Right to Know:	Diethanolamine (111-42-2) is listed on the U.S. New Jersey Right to Know Hazardous Substance List. Hydrogen chloride (7647-01-0) is listed on the U.S. New Jersey Right To Know Hazardous Substance List.
15.1f	USA California Prop. 65 Components:	This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity. Diethanolamine (111-42-2) is listed on the U.S. California Proposition 65 Carcinogens list.
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	Approved code of practice:	Classification and labeling of substances and preparations dangerous

		for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	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 (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	**Chemical safety assessment:**	Not required.
15.2a	Other regulatory information:	None.
Section 16: Other information		
16.1	**Other information:**	.
16.1a	Date of revision:	06/08/2017
16.1b	SDS number and revision:	F17-3328-2-D
16.1c	Supersedes SDS number and revision:	F17-3328-2-C
16.1d	Changes made to the previous version of the SDS:	Updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal dose. LogPow logarithm of the octanol/water partition coefficient. MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. OEL Occupational Exposure Limit. OSHA Occupational Safety and Health Administration (USA). PBT Persistent, Bioaccumulative, and Toxic. PEL Permissible Exposure Limit. RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. SADT Self-Accelerating Decomposition Temperature. SARA Superfund Amendments and Reauthorization Act. SCBA Self-Contained Breathing Apparatus. SDS Safety Data Sheet. STOT Specific Target Organ Toxicity. STOT-RE Specific Target Organ Toxicity - Repeated Exposure. STOT-SE Specific Target Organ Toxicity - Single Exposure. UN United Nations. USA United States of America. vPvB very Persistent very bioaccumulative.
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
DISCLAIMER:	**This information relates only to the specific material designated and may not be valid for such material used**	

	in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS