

**Product identifier** 

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

# SAFETY DATA SHEET

1.1.

# **External Ammunition Sealant 76083**

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### External Ammunition Sealant 76083 Trade name: MS-76083 Product no.: Unique formula identifier (UFI): [000-A0PG-V00R-2TC2 1.2. Relevant identified uses of the substance or mixture and uses advised against *Relevant identified uses of the* Sealant substance or mixture: Restricted to professional users. Uses advised against : None known. 1.3. Details of the supplier of the safety data sheet Company and address: Hernon Manufacturing Inc 121 Tech Drive FL 32771 Sanford USA T: +1-407-322-4000 www.hernon.com Contact person: Hernon SDS Coordinator E-mail: customerservice@hernon.com Revision: 15/05/2025 SDS Version: 2.0 Date of previous version: 08/10/2024 (1.0)

## **1.4.** Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webpoisoncontrol (triage.webpoisoncontrol.org) to get specific guidance for your case. VelocityEHS: +1-800-255-3924 (USA) +1-813-248-0585 (International) 1-300-954-583 (Australia) 0-800-591-6042 (Brazil) 400-120-0751 (China) 000-800-100-4086 (India) 800-099-0731 (Mexico) Contract #: (MIS0002665)

## **SECTION 2: HAZARDS IDENTIFICATION**

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.



# 2.1. ▼ Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.
Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Dam. 1; H318, Causes serious eye damage.
STOT SE 3; H335, May cause respiratory irritation.
Aquatic Chronic 2; H411, Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

▼ Hazard pictogram(s):



Signal word:	Danger
▼ Hazard statement(s):	Causes skin irritation. (H315) May cause an allergic skin reaction. (H317) Causes serious eye damage. (H318) May cause respiratory irritation. (H335) Toxic to aquatic life with long lasting effects. (H411)
Precautionary statement(s):	
General:	-
▼ Prevention:	Avoid breathing mist/vapour. (P261) Wear eye protection/protective gloves/protective clothing. (P280)
▼ Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310)
Storage:	Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
Disposal:	Dispose of contents/container in accordance with local regulation (P501)
▼ Hazardous substances:	Dipropylene Glycol Diacrylate acrylic acid phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide Hydroxycyclohexyl phenyl ketone Cumene hydroperoxide Cumene
▼Additional labelling:	UFI: J000-A0PG-V00R-2TC2
Other hazards	
Additional warnings:	This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

2.3.



# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. ▼Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Dipropylene Glycol Diacrylate	CAS No.: 57472-68-1 EC No.: 260-754-3 UK-REACH: Index No.:	60-100%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318	
acrylic acid	CAS No.: 79-10-7 EC No.: 201-177-9 UK-REACH: Index No.: 607-061-00-8	1-5%	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 4, H332 STOT SE 3, H335 (SCL: 1.00 %) Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide	CAS No.: 162881-26-7 EC No.: 423-340-5 UK-REACH: Index No.: 015-189-00-5	1-5%	Skin Sens. 1A, H317 Aquatic Chronic 4, H413	
Hydroxycyclohexyl phenyl ketone	CAS No.: 947-19-3 EC No.: 213-426-9 UK-REACH: Index No.:	1-5%	Aquatic Chronic 3, H412	
Cumene hydroperoxide	CAS No.: 80-15-9 EC No.: 201-254-7 UK-REACH: Index No.: 617-002-00-8	0.5-5%	Org. Perox. E, H242 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 (SCL: 10.00 %) Skin Irrit. 2, H315 (SCL: 3.00 %) Eye Dam. 1, H318 Acute Tox. 3, H331 STOT SE 3, H336 STOT RE 2, H373 Aquatic Chronic 1, H410 (M=1)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.



## Other information

[1] European occupational exposure limit.

## **SECTION 4: FIRST AID MEASURES**

4.1.	Description of first aid measures		
	General information:	In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.	
	Inhalation:	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.	
	▼ Skin contact:	IF ON SKIN: Wash with plenty of water and soap. Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.	
	Eye contact:	If in eyes: Flush eyes with plenty of water or salt water (20- 30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.	
	Ingestion:	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.	
	Burns:	Not applicable.	

# 4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

# **4.3.** Indication of any immediate medical attention and special treatment needed IF exposed or concerned:

Get immediate medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

### Information to medics

Bring this safety data sheet or the label from this product.

# **SECTION 5: FIREFIGHTING MEASURES**



# 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist. Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

# 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters. If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are: Carbon oxides (CO / CO2)

## 5.3. ▼ Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

# 6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances. Ensure adequate ventilation, especially in confined areas. Avoid inhalation of vapours from spilled material. Contaminated areas may be slippery.

## 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

## 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste. See section 8 "Exposure controls/personal protection" for protective measures.

# SECTION 7: HANDLING AND STORAGE

## 7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

## 7.2. **v** Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.



Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material:	Always store in containers of the same material as the original container.
▼ Storage conditions:	Keep at temperatures between 7 and 29 °C. Dry, cool and well ventilated Keep away from any light sources Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Protect from moisture.
Incompatible materials:	Strong oxidizing agents Reducing agents Free radical initiators

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

Inert gas Peroxides

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. ▼ Control parameters

acrylic acid Long term exposure limit (8 hours) (ppm): 10 Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 29 Short term exposure limit (15 minutes) (ppm): 20 (1 min.) Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 59 (1 min.)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.

EH40/2005 Workplace exposure limits (Fourth Edition 2020).

### ▼ DNEL

Dipropylene Glycol Diacrylate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	1.7 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	2.35 mg/m <sup>3</sup>

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	3.6 mg/m <sup>3</sup>
Long term – Local effects - Workers	Inhalation	30 mg/m <sup>3</sup>
Long term – Systemic effects - General population	Inhalation	3.6 mg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	30 mg/m <sup>3</sup>
Short term – Local effects - General population	Inhalation	3.6 mg/m <sup>3</sup>
Short term – Local effects - Workers	Inhalation	30 mg/m <sup>3</sup>



Short term – Systemic effects - General population	Inhalation	3.6 mg/m <sup>3</sup>
Short term – Systemic effects - Workers	Inhalation	30 mg/m <sup>3</sup>
Long term – Systemic effects - General population	Oral	400 µg/kg bw/day
Short term – Systemic effects - General population	Oral	1.2 mg/kg bw/day

# Cumene hydroperoxide

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Inhalation	6 mg/m³

# Hydroxycyclohexyl phenyl ketone

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	694 µg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1.94 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	1.21 mg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	6.8 mg/m <sup>3</sup>
Long term – Systemic effects - General population	Oral	694 µg/kg bw/day

### phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1.5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	3 mg/kg bw/day
Short term – Systemic effects - General population	Dermal	1.67 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	3.33 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	1.93 mg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	7.84 mg/m <sup>3</sup>
Short term – Systemic effects - General population	Inhalation	1.93 mg/m <sup>3</sup>
Short term – Systemic effects - Workers	Inhalation	7.84 mg/m <sup>3</sup>
Long term – Systemic effects - General population	Oral	1.5 mg/kg bw/day
Short term – Systemic effects - General population	Oral	1.67 ng/kg bw/day

### ▼ PNEC

Dipropylene Glycol Diacrylate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3.4 µg/L
Freshwater sediment		19 µg/kg
Intermittent release (freshwater)		34 µg/L
Marine water		340 ng/L
Marine water sediment		1.9 µg/kg
Sewage treatment plant		100 mg/L
Soil		1.8 µg/kg



acrylic acid		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3 µg/L
Freshwater sediment		23.64 µg/kg
Intermittent release (freshwater)		1.3 µg/L
Marine water		300 ng/L
Marine water sediment		2.364 µg/kg
Predators		30 mg/kg
Sewage treatment plant		900 µg/L
Soil		1 mg/kg

#### Cumene hydroperoxide

Route of exposure:	Duration of Exposure:	PNEC:	
Freshwater		3.1 µg/L	
Freshwater sediment		23 µg/kg	
Intermittent release (freshwater)		31 µg/L	
Marine water		310 ng/L	
Marine water sediment		2.3 µg/kg	
Sewage treatment plant		350 µg/L	
Soil		2.9 µg/kg	

# Hydroxycyclohexyl phenyl ketone

Route of exposure:	Duration of Exposure:	PNEC:	
Freshwater		3 µg/L	
Freshwater sediment		35.6 µg/kg	
Intermittent release (freshwater)		144 µg/L	
Intermittent release (marine water)		14.4 µg/L	
Marine water		300 ng/L	
Marine water sediment		3.56 µg/kg	
Sewage treatment plant		10 mg/L	
Soil		5.37 µg/kg	

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Route of exposure:	Duration of Exposure:	PNEC:	
Freshwater		800-1000 ng/L	
Freshwater sediment		712 µg/kg	
Intermittent release (freshwater)		800-1000 ng/L	
Marine water		800-1000 ng/L	
Marine water sediment		712 µg/kg	
Sewage treatment plant		1 mg/L	
Soil		20 mg/kg	

# 8.2. **v** Exposure controls



Compliance with the given occupational exposure limits values should be controlled on a regular basis.			
General recommendations:	Smoking, drinking and consumption of food is not allowed in the work area.		
Exposure scenarios:	There are no exposure scenarios implemented for this product.		
▼ Exposure limits:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.		
▼ Appropriate technical measures:	The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Ensure that eyewash stations and safety showers are located within easy reach. Apply standard precautions during use of the product. Avoid inhalation of vapours.		
Hygiene measures:	Take off contaminated clothing and wash it before reuse.		
Measures to avoid environmental exposure:	Keep damming materials near the workplace. If possible, collect spillage during work.		

## Individual protection measures, such as personal protective equipment

Generally:

Use only UKCA marked protective equipment.

### **Respiratory Equipment:**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

## Skin protection:

Recommended	Type/Category	Standards	
-	Protective Clothing		Î

### Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile Rubber				

### Eye protection:

Туре	Standards	
Safety glasses with side shields.	EN166	



# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1. Information on basic physical and chemical properties

	Physical state:	Liquid
	Colour:	Blue
	Odour / Odour threshold:	Mild
	рН:	No data available
	Density (g/cm³):	1.04
	Kinematic viscosity:	No data available
	Particle characteristics:	No data available
Phase	changes	
	Melting point/Freezing point (°C):	No data available
	Softening point/range (°C):	Does not apply to liquids.
	Boiling point (°C):	No data available
	Vapour pressure:	No data available
	Relative vapour density:	No data available
	Decomposition temperature (°C):	No data available
Data	on fire and explosion hazards	
	Flash point (°C):	>94
	Flammability (°C):	No data available
	Auto-ignition temperature (°C):	No data available
	Lower and upper explosion limit (% v/v):	No data available
Solub	ility	
	Solubility in water:	No data available
	n-octanol/water coefficient (LogKow):	No data available
	Solubility in fat (g/L):	No data available
9.2.	Other information	
	Evaporation rate (n-butylacetate = 100):	No data available
	Oxidizing properties:	No data available
	Other physical and chemical parameters:	No data available.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.



# 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

**10.3.** Possibility of hazardous reactions None known.

# 10.4. ▼ Conditions to avoid

Incompatible Materials Extremes of temperature Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources. Moisture Other light sources Sunlight

## 10.5. Incompatible materials

Strong oxidizing agents Reducing agents Free radical initiators Inert gas Peroxides

## 10.6. **v** Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# SECTION 11: TOXICOLOGICAL INFORMATION

# 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

### Acute toxicity

Based on available data, the classification criteria are not met.

## Skin corrosion/irritation

Causes skin irritation.

## Serious eye damage/irritation

Causes serious eye damage.

### **Respiratory sensitisation**

Based on available data, the classification criteria are not met.

### Skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

### ▼ Carcinogenicity

Based on available data, the classification criteria are not met.

## **Reproductive toxicity**

Based on available data, the classification criteria are not met.

## STOT-single exposure

May cause respiratory irritation.

# STOT-repeated exposure

Based on available data, the classification criteria are not met.



# **Aspiration hazard**

Based on available data, the classification criteria are not met.

# 11.2. Information on other hazards

### ▼ Long term effects

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

### ▼ Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

### ▼ Other information

acrylic acid has been classified by IARC as a group 3 carcinogen.

### **SECTION 12: ECOLOGICAL INFORMATION**

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

- **12.2.** Persistence and degradability Based on available data, the classification criteria are not met.
- **12.3. Bioaccumulative potential** Based on available data, the classification criteria are not met.
- 12.4. Mobility in soil

No data available.

- **12.5. Results of PBT and vPvB assessment** This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
- **12.6.** Endocrine disrupting properties This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

### 12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

# **SECTION 13: DISPOSAL CONSIDERATIONS**

### ▼ Waste treatment methods

Product is covered by the regulations on hazardous waste. HP 4 - Irritant (skin irritation and eye damage) HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity HP 13 – Sensitising HP 14 – Ecotoxic Dispose of contents/container to an approved waste disposal plant. Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

# **EWC code**



Not applicable.

# **Specific labelling**

# **Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

# **SECTION 14: TRANSPORT INFORMATION**

		14.2 UN proper shipping name	14.3 Hazard class(es)		Env**	Other informat ion:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
ΙΑΤΑ	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

### **Additional information**

This product is within scope of the regulations of transport of dangerous goods.

# **14.6.** Special precautions for user Not applicable.

**14.7.** Maritime transport in bulk according to IMO instruments No data available.

# **SECTION 15: REGULATORY INFORMATION**

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application:	Restricted to professional users. People under the age of 18 shall not be exposed to this product. Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.
Demands for specific education:	No specific requirements.
Control of Major Accident Hazards (COMAH) - Categories / dangerous substances:	E2 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 200 tonnes / (upper-tier): 500 tonnes
UK-REACH, Annex XVII:	acrylic acid is subject to UK-REACH restrictions (entry 40).
Additional information:	Not applicable.
Sources:	The Management of Health and Safety at Work Regulations 1999. The Health and Safety at Work etc. Act 1974 Regulations 2013. Control of Major Accident Hazards (COMAH) Regulations



### 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

# 15.2. Chemical safety assessment

No

# **SECTION 16: OTHER INFORMATION**

### ▼ Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H242, Heating may cause a fire.

H302, Harmful if swallowed.

H312, Harmful in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H331, Toxic if inhaled.

H332, Harmful if inhaled.

H335, May cause respiratory irritation.

H336, May cause drowsiness or dizziness.

H373, May cause damage to organs through prolonged or repeated exposure.

H400, Very toxic to aquatic life.

H410, Very toxic to aquatic life with long lasting effects.

H412, Harmful to aquatic life with long lasting effects.

H413, May cause long lasting harmful effects to aquatic life.

# Abbreviations and acronyms

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 = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue



GHS = Globally Harmonized System of Classification and Labelling of Chemicals GWP = Global warming potential IARC = International Agency for Research on Cancer (IARC) IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) OECD = Organisation for Economic Co-operation and Development PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail **RRN = REACH Registration Number** SCL = A specific concentration limit SVHC = Substances of Very High Concern STOT-RE = Specific Target Organ Toxicity - Repeated Exposure STOT-SE = Specific Target Organ Toxicity - Single Exposure TWA = Time weighted average UN = United Nations UVBC = Unknown or variable composition, complex reaction products or of biological materials VOC = Volatile Organic Compound vPvB = Very Persistent and Very Bioaccumulative

## Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

## The safety data sheet is validated by

SDS Coordinator

## Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification. Country-language: GB-en