Rhodamine Red[™]-X-conjugated AffiniPure[™] Fab Fragment Goat

Anti-Rat IgM, μ Chain Specific

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830



Version: 3.1

Date of issue: 01/05/2024

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

1.1. **Product identifier Product Form** : Mixture Product Name : Rhodamine Red[™]-X-conjugated AffiniPure[™] Fab Fragment Goat Anti-Rat IgM, m Chain Specific Product Code : 112-297-020 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. **Relevant identified uses** Use of the substance/mixture : For in vitro research use only. Not for diagnostic or therapeutic use. This is not a medical device. Contact supplier for specific applications. Uses advised against 1.2.2. No additional information available 1.3. Details of the supplier of the safety data sheet Manufacturer **European Contact** Jackson ImmunoResearch Laboratories, Inc. Jackson ImmunoResearch Europe LTD 872 West Baltimore Pike **Cambridge House** West Grove, PA 19390 St Thomas' Place T: 800-367-5296, 610-869-4024 Ely, Cambridgeshire CB7 4EX, UK F: 610-869-0171 T: +44 (0) 1638 782616 tech@jacksonimmuno.com F: +44 (0) 1353 664675 www.jacksonimmuno.com info@jacksonimmuno.com help@jacksonimmuno.com Email address for the person responsible for this SDS: tech@jacksonimmuno.com 1.4. **Emergency telephone number** Emergency number : +1-610-869-4024 (USA) SECTION 2: Hazards identification Classification of the substance or mixture 2.1. Classification According to Regulation (EC) No. 1272/2008 [CLP] Aquatic Chronic3 H412 Full text of hazard classes and H-statements: see section 16 Adverse physicochemical, human health and environmental effects No additional information available 2.2. Label elements Labelling According to Regulation (EC) No. 1272/2008 [CLP] Hazard statements (CLP) H412 - Harmful to aquatic life with long lasting effects. Precautionary statements (CLP) P273 - Avoid release to the environment. P501 - Dispose of contents/container to hazardous or special waste collection

EUH-statements

2.3. Other hazards

Other hazards not contributing to the : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

point, in accordance with local, regional, national and/or international

EUH032 - Contact with acids liberates very toxic gas.

01/05/2024

regulation.

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Jackson ImmunoResearch

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

classification

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Sodium azide	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7	0.54	Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium phosphate dibasic	(CAS-No.) 7558-79-4 (EC-No.) 231-448-7	1.5	Not classified
Rhodamine Red™-X-conjugated AffiniPure™ Fab Fragment Goat Anti-Rat IgM, m Chain Specific	(CAS-No.) Not assigned	1.75	Not classified
Sodium chloride	(CAS-No.) 7647-14-5 (EC-No.) 231-598-3	15.68	Not classified
Albumins, blood serum	(CAS-No.) 9048-46-8 (EC-No.) 232-936-2	16.11	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Using proper respiratory protection, move the exposed person to fresh air at once. Immediately call a poison center, physician, or emergency medical service.
First-aid measures after skin contact	: Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
First-aid measures after eye contact	 Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.
4.2. Most important symptoms a	nd effects, both acute and delayed
Symptoms/effects	 Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: May be harmful or cause irritation.
Symptoms/effects after skin contact	: Prolonged exposure may cause skin irritation.
Symptoms/effects after eye contact	: May cause slight irritation to eyes.
Symptoms/effects after ingestion	: Ingestion may cause adverse effects. May be harmful if swallowed.
Chronic symptoms	: None expected under normal conditions of use.
4.3 Indication of any immediate	medical attention and special treatment needed

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830



Suitable extinguishing media	: Water spray, fog, carbon dioxide (CO ₂), alcohol-resistant foam, or dry chemical.
	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.
5.2. Special hazards arising fro	om the substance or mixture
Fire hazard	: Not Assigned
Reactivity	: Sodium azide in water is a weak base. Reacts with copper, lead, silver, mercury, and carbon disulfide to form shock-sensitive compounds. Reacts with acids, forming toxic and explosive hydrogen azide. Contact with acids liberates toxic gas.
Hazardous decomposition products in case of fire	: Hydrogen chloride. Sodium oxides. Nitrogen oxides.
5.3. Advice for firefighters	
Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1.	Personal precautions, protective	e equipment and emergency procedures
Genera	al measures	: Avoid prolonged contact with eyes, skin and clothing.
6.1.1.	For non-emergency personnel	
Protec	tive equipment	: Use appropriate personal protective equipment (PPE).
Emerg	ency procedures	: Evacuate unnecessary personnel.
6.1.2.	For emergency responders	
Protec	tive equipment	: Equip cleanup crew with proper protection.
Emerg	ency procedures	: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.
6.2.	Environmental precautions	
		: Prevent entry to sewers and public waters. Avoid release to the environment.
6.3.	Methods and material for cont	ainment and cleaning up
For co	ntainment	: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.
Metho	ds for cleaning up	: Clean up spills immediately and dispose of waste safely. Contact competent authorities after a spill.

6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and st	torage
7.1. Precautions for safe handling	ng
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures.
7.2. Conditions for safe storage	, including any incompatibilities
Technical measures	: Comply with applicable regulations.
Storage conditions	: Keep container closed when not in use. Store at 2-8°C (35°F - 46.4°F). Keep/Store away from extremely high temperatures and incompatible materials.

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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Incompatible materials

: Strong acids, strong bases, strong oxidizers. Heavy metals. Halogenated hydrocarbons.

7.3. Specific end use(s)

For in vitro research use only. Not for diagnostic or therapeutic use. This is not a medical device. Contact supplier for specific applications.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium chloride (7647-1	4-5)	
Latvia	OEL TWA (mg/m³)	5 mg/m³
Lithuania	IPRV (mg/m³)	5 mg/m ³
Sodium azide (26628-22	-8)	
EU	IOELV TWA (mg/m ³)	0,1 mg/m ³
EU	IOELV STEL (mg/m ³)	0,3 mg/m³
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m³)	0,1 mg/m³
Austria	MAK Short time value (mg/m³)	0,3 mg/m ³
Austria	OEL chemical category (AT)	Skin notation
Belgium	OEL chemical category (BE)	Skin, Skin notation
Bulgaria	OEL TWA (mg/m³)	0,1 mg/m ³
Bulgaria	OEL STEL (mg/m ³)	0,3 mg/m³
Croatia	GVI (granicna vrijednost izloženosti) (mg/m ³)	0,1 mg/m³
Croatia	KGVI (kratkotrajna granicna vrijednost izloženosti) (mg/m³)	0,3 mg/m³
Croatia	OEL chemical category (HR)	Skin notation
Cyprus	OEL TWA (mg/m³)	0,1 mg/m ³
Cyprus	OEL STEL (mg/m ³)	0,3 mg/m³
Cyprus	OEL chemical category (CY)	Skin-potential for cutaneous absorption
France	VLE (mg/m ³)	0,3 mg/m ³ (restrictive limit)
France	VME (mg/m ³)	0,1 mg/m ³ (restrictive limit)
France	OEL chemical category (FR)	Risk of cutaneous absorption
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	0,2 mg/m ³
Gibraltar	Eight hours mg/m3	0,1 mg/m ³
Gibraltar	Short-term mg/m3	0,3 mg/m ³
Gibraltar	OEL chemical category (GI)	Skin notation
Greece	OEL TWA (mg/m³)	0,3 mg/m ³
Greece	OEL TWA (ppm)	0,1 ppm
Greece	OEL STEL (mg/m ³)	0,3 mg/m ³
Greece	OEL STEL (ppm)	0,1 ppm

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

USA ACGIH	ACGIH Ceiling (mg/m³)	0,29 mg/m³
USA ACGIH	ACGIH Ceiling (ppm)	0,11 ppm
Italy	OEL TWA (mg/m ³)	0,1 mg/m ³
Italy	OEL STEL (mg/m ³)	0,3 mg/m ³
Italy	OEL chemical category (IT)	skin - potential for cutaneous absorption
Latvia	OEL TWA (mg/m³)	0,1 mg/m³
Latvia	OEL chemical category (LV)	skin - potential for cutaneous exposure
Spain	VLA-ED (mg/m³)	0,1 mg/m ³ (indicative limit value)
Spain	VLA-EC (mg/m³)	0,3 mg/m ³
Spain	OEL chemical category (ES)	skin - potential for cutaneous absorption
Switzerland	KZGW (mg/m³)	0,4 mg/m³ (inhalable dust)
Switzerland	MAK (mg/m³)	0,2 mg/m³ (inhalable dust)
Netherlands	Grenswaarde TGG 8H (mg/m³)	0,1 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	0,3 mg/m³
United Kingdom	WEL TWA (mg/m³)	0,1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	0,3 mg/m ³
United Kingdom	WEL chemical category	Potential for cutaneous absorption
Czech Republic	Expozicní limity (PEL) (mg/m³)	0,1 mg/m³
Czech Republic	OEL chemical category (CZ)	Potential for cutaneous absorption
Denmark	Grænseværdie (langvarig) (mg/m³)	0,1 mg/m³
Estonia	OEL TWA (mg/m³)	0,1 mg/m³
Estonia	OEL STEL (mg/m ³)	0,3 mg/m³
Estonia	OEL chemical category (ET)	Sensitizer, Skin notation
Finland	HTP-arvo (8h) (mg/m³)	0,1 mg/m³
Finland	HTP-arvo (15 min)	0,3 mg/m³
Finland	OEL chemical category (FI)	Potential for cutaneous absorption
Hungary	AK-érték	0,1 mg/m³
Hungary	CK-érték	0,3 mg/m³
Ireland	OEL (8 hours ref) (mg/m ³)	0,1 mg/m³
Ireland	OEL (15 min ref) (mg/m3)	0,3 mg/m³
Ireland	OEL chemical category (IE)	Potential for cutaneous absorption
Lithuania	IPRV (mg/m ³)	0,1 mg/m³
Lithuania	TPRV (mg/m³)	0,3 mg/m ³
Lithuania	OEL chemical category (LT)	Skin notation
Luxembourg	OEL TWA (mg/m³)	0,1 mg/m ³
Luxembourg	OEL STEL (mg/m³)	0,3 mg/m ³
Luxembourg	OEL chemical category (LU)	Possibility of significant uptake through the skin
Malta	OEL TWA (mg/m ³)	0,1 mg/m ³





Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Malta	OEL STEL (mg/m ³)	0,3 mg/m³
Malta	OEL chemical category (MT)	Possibility of significant uptake through the skin
Norway	Grenseverdier (AN) (mg/m ³)	0,1 mg/m³
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	0,3 mg/m ³ (value from the regulation)
Poland	NDS (mg/m ³)	0,1 mg/m ³
Poland	NDSCh (mg/m ³)	0,3 mg/m ³
Romania	OEL TWA (mg/m³)	0,1 mg/m ³
Romania	OEL STEL (mg/m ³)	0,3 mg/m ³
Romania	OEL chemical category (RO)	Skin notation
Slovakia	NPHV (priemerná) (mg/m³)	0,1 mg/m³ (Sodium azide)
Slovakia	NPHV (Hranicná) (mg/m³)	0,3 mg/m ³
Slovakia	OEL chemical category (SK)	Potential for cutaneous absorption
Slovenia	OEL TWA (mg/m³)	0,1 mg/m ³
Slovenia	OEL STEL (mg/m ³)	0,3 mg/m ³
Slovenia	OEL chemical category (SL)	Potential for cutaneous absorption
Sweden	nivågränsvärde (NVG) (mg/m³)	0,1 mg/m ³
Sweden	kortidsvärde (KTV) (mg/m³)	0,3 mg/m ³
Portugal	OEL TWA (mg/m³)	0,1 mg/m ³ (indicative limit value)
Portugal	OEL STEL (mg/m ³)	0,3 mg/m ³ (indicative limit value)
Portugal	OEL - Ceilings (mg/m³)	0,29 mg/m ³
Portugal	OEL - Ceilings (ppm)	0,11 ppm (vapor)
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human
		Carcinogen, skin - potential for cutaneous
		exposure indicative limit value

8.2. **Exposure controls**

Appropriate engineering controls

Personal protective equipment

- Materials for protective clothing Hand protection Eye and Face Protection Skin and body protection Respiratory protection
- : Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure all national/local regulations are observed.
- : Gloves. Protective clothing. Protective goggles.



- : Chemically resistant materials and fabrics.
- : Wear protective gloves.
- : Chemical safety goggles.
- : Wear suitable protective clothing.
- : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
- Other information

: When using, do not eat, drink or smoke. SECTION 9: Physical and chemical properties

Rhodamine Red[™]-X-conjugated AffiniPure[™] Fab Fragment Goat

Anti-Rat IgM, μ Chain Specific

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

9.1. Information on basic physical and chemical properties

3.1. Information on basic physical and them	icai	properties
Physical state	:	Solid
Colour	:	Purple pink solid
Odour	:	Odourless, as water
Odour threshold	:	No data available
рН	:	7.6, when rehydrated with indicated volume of H_2O
Evaporation rate	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temerature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Water
Partition coefficent: n-octanol/water	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available
9.2. Other information		

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Sodium azide in water is a weak base. Reacts with copper, lead, silver, mercury, and carbon disulfide to form shock-sensitive compounds. Reacts with acids, forming toxic and explosive hydrogen azide. Contact with acids liberates toxic gas.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Extremely high temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers. Heavy metals. halogenated hydrocarbons.

10.6. Hazardous decomposition products

Sodium oxides. Hydrogen chloride gas. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Sodium chloride (7647-14-5)	
LD50 oral rat	3550 mg/kg (Species: Wistar)
LD50 dermal rabbit	> 10000 mg/kg (Species: New Zealand White)





Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

LC50 inhalation rat (mg/l)	>42 g/m ³ (Exposure time: 1 h)
Sodium azide (26628-22-8)	
LD50 oral rat	27 mg/kg
LD50 oral	45 mg/kg
LD50 dermal rabbit	20 mg/kg
Sodium phosphate dibasic (7558-79-4)	
LD50 oral rat	17 g/kg
LD50 dermal rat	>500 mg/kg (50% solution)
Skin corrosion/irritation	: Not classified pH: 7,6 when rehydrated with indicated volume of H ₂ O
Serious eye damage/irritation	 Not classified pH: 7,6 when rehydrated with indicated volume of H₂O
Respiratory or skin sensitisation Germ cell mutagenicity	: Not classified : Not classified
Carcinogenicity	: Not classified
Reproductive toxicity STOT-single exposure	 Not classified Not classified Not classified
Aspiration hazard	: Not classified
Symptoms/Injuries After Inhalation Symptoms/Injuries After Skin Contact Symptoms/Injuries After Eye Contact Symptoms/Injuries After Ingestion Chronic Symptoms SECTION 12: Ecological inform	 May be harmful or cause irritation. Prolonged exposure may cause skin irritation. May cause slight irritation to eyes. Ingestion may cause adverse effects. May be harmful if swallowed. None expected under normal conditions of use.
2.1. Toxicity	nation
Ecology - general	: Harmful to aquatic life with long lasting effects.
Sodium chloride (7647-14-5)	
LC50 fish 1	5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
_C50 fish 2	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	340,7 (340,7 - 469,2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC chronic fish	252 mg/l (Species: Pimephales promelas)
Sodium azide (26628-22-8)	
LC50 fish 1	0,8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.2. Persistence and degradab Rhodamine Red™-X-conjugated Affir	oility niPure™ Fab Fragment Goat Anti-Rat IgM, m Chain Specific
Persistence and degradability	Not established.
12.3. Bioaccumulative potentia	i
Rhodamine Red [™] -X-conjugated Affir	niPure™ Fab Fragment Goat Anti-Rat IgM, m Chain Specific
Bioaccumulative potential	Not established.
Sodium chloride (7647-14-5)	
BCF fish 1	(no bioaccumulation)
 12.4. Mobility in soil No additional information available 12.5. Results of PBT and vPvB as 	ssessment
No additional information available 12.6. Other adverse effects Other information	: Avoid release to the environment.
SECTION 13: Disposal con	siderations
13.1. Waste treatment method Product/Packaging disposal	s : Dispose of contents/container in accordance with local, regional, national, and international regulations.

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN numbe	r			
Not regulated for tra	nsport			
14.2. UN proper	shipping name			
Notapplicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport	nazard class(es)			
Notapplicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing gro	oup			
Notapplicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environme	ntal hazards			
Dangerous for the	Dangerous for the	Dangerous for the	Dangerous for the	Dangerous for the
environment : No	environment : No	environment : No	environment : No	environment : No
	Marine pollutant : No			

Special precautions for user 14.6.

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture **15.1.1.** EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

Sodium phosphate dibasic (7558-79-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium chloride (7647-14-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium azide (26628-22-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Albumins, blood serum (9048-46-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Date of Preparation or Latest Revision	: 01/05/2024
Data sources	: Information and data obtained and used in the authoring of this safety data shee could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications
	according to GHS or their subsequent adoption of GHS.
Other information	: According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full Text of H- and EUH-statements:

Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1	
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3	
H300	Fatal if swallowed.	
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.	
EUH032	2 Contact with acids liberates very toxic gas.	

Indication of Changes No additional information available

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists ADN – European Agreement Concerning the International Carriage of

NDS - Najwyzsze Dopuszczalne Stezenie NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe







According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Dangerous Goods by Inland Waterways NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe ADR - European Agreement Concerning the International Carriage of NOAEL - No-Observed Adverse Effect Level Dangerous Goods by Road NOEC - No-Observed Effect Concentration ATE - Acute Toxicity Estimate NRD - Nevirsytinas Ribinis Dydis **BCF** - Bioconcentration Factor NTP - National Toxicology Program BEI - Biological Exposure Indices (BEI) **OEL - Occupational Exposure Limits** BOD - Biochemical Oxygen Demand PBT - Persistent, Bioaccumulative and Toxic CAS No. - Chemical Abstracts Service Number PEL - Permissible Exposure Limit CLP - Classification, Labeling and Packaging Regulation (EC) No pH-Potential Hydrogen 1272/2008 REACH - Registration, Evaluation, Authorisation, and Restriction of COD - Chemical Oxygen Demand Chemicals EC – European Community RID - Regulations Concerning the International Carriage of Dangerous EC50 - Median Effective Concentration Goods by Rail EEC - European Economic Community SADT - Self Accelerating Decomposition Temperature EINECS - European Inventory of Existing Commercial Chemical SDS - Safety Data Sheet STEL - Short Term Exposure Limit Substances EmS-No. (Fire) - IMDG Emergency Schedule Fire STOT - Specific Target Organ Toxicity EmS-No. (Spillage) - IMDG Emergency Schedule Spillage TA-Luft - Technische Anleitung zur Reinhaltung der Luft EU – European Union TEL TRK – Technical Guidance Concentrations ErC50 - EC50 in Terms of Reduction Growth Rate ThOD – Theoretical Oxygen Demand GHS-Globally Harmonized System of Classification and Labeling of TLM - Median Tolerance Limit TLV - Threshold Limit Value Chemicals IARC - International Agency for Research on Cancer TPRD - Trumpalaikio Poveikio Ribinis Dydis IATA - International Air Transport Association TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von IBC Code - International Bulk Chemical Code Gefahrstoffen in ortsbeweglichen Behältern IMDG - International Maritime Dangerous Goods TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine IPRV - Ilgalaikio Poveikio Ribinis Dydis TRGS 900 - Technische Regel für Gefahrstoffe 900 -IOELV - Indicative Occupational Exposure Limit Value Arbeitsplatzgrenzwerte LC50 - Median Lethal Concentration TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische LD50 - Median Lethal Dose Grenzwerte LOAEL - Lowest Observed Adverse Effect Level TSCA - Toxic Substances Control Act LOEC - Lowest-Observed-Effect Concentration TWA - Time Weighted Average Log Koc - Soil Organic Carbon-water Partitioning Coefficient VOC - Volatile Organic Compounds Log Kow - Octanol/water Partition Coefficient VLA-EC - Valor Límite Ambiental Exposición de Corta Duración Log Pow - Ratio of the equilibrium concentration (C) of a dissolved VLA-ED - Valor Límite Ambiental Exposición Diaria substance in a two-phase system consisting of two largely immiscible VLE-Valeur Limite D'exposition solvents, in this case octanol and water VME-Valeur Limite De Moyenne Exposition MAK – Maximum Workplace Concentration/Maximum Permissible vPvB - Very Persistent and Very Bioaccumulative Concentration WEL-Workplace Exposure Limit MARPOL - International Convention for the Prevention of Pollution WGK - Wassergefährdungsklasse EU GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.