

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 14-2-2017 Revision date: 21-6-2024 Supersedes version of: 12-7-2022 Version: 4.1

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

#### 1.1. Product identifier

Product form : Mixture

Product name : Roest- en kalkverwijderaar UFI : Q300-908U-C00X-CD2E

Product code : 272594, 272371, 272412, 271020

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

### Relevant identified uses

Main use category : Professional use Industrial/Professional use spec : Wide dispersive use

Use of the substance/mixture : The information given in this MSDS concerns the product and is given on the assumption

mentioned in section 1.1, that the product will be used in the manner and for the purposes

indicated by the manufacturer.

Use of the substance/mixture : Descaler

Rust remover

## 1.3. Details of the supplier of the safety data sheet

#### Distributor

JeFo Ship Supply Roomweg 6-B NL 8334 NR Tuk Nederland

T +31(0)683701219

info@jefoshipsupply.nl, www.jefoshipsupply.nl

### 1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1 H290
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Specific target organ toxicity – Single exposure, Category 3, H335

Respiratory tract irritation

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



: Warning.

Signal word (CLP) Contains : hydrogen chloride

Hazard statements (CLP) : H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P261 - Avoid breathing mist, spray, vapours.

> P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear eye protection, protective clothing, protective gloves.

P312 - Call a doctor if you feel unwell.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P390 - Absorb spillage to prevent material damage.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrogen chloride substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-00-2 REACH-no: 01-2119484862- 27	15 – 25	Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335

Specific concentration limits:		
Name Product identifier		Specific concentration limits (%)
hydrogen chloride	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-00-2 REACH-no: 01-2119484862- 27	$(10 \le C < 100)$ STOT SE 3; H335 $(10 \le C < 25)$ Eye Irrit. 2; H319 $(10 \le C < 25)$ Skin Irrit. 2; H315 $(25 \le C < 100)$ Skin Corr. 1B; H314

Full text of H- and EUH-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). Call a physician immediately.

21-6-2024 (Printing date) EN (English) 2/13

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON

CENTER/doctor.

First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Immediately call a

POISON CENTER/doctor. Rinse skin with water/shower. Take off immediately all

contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Immediately call a POISON CENTER/doctor. Rinse mouth. Do not induce vomiting. Call a

physician immediately.

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

Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment.

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 equipment and emergency procedures

#### For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

## 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

21-6-2024 (Printing date) EN (English) 3/13

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear

personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Wash contaminated clothing before reuse.

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

Storage conditions : Store in a well-ventilated place. Keep cool. Store in corrosive resistant container with a

resistant inner liner. Keep only in original container.

 $\begin{tabular}{ll} Incompatible materials & : Metals. \\ Storage temperature & : <math>10-30~{\rm ^{\circ}C}$ 

Information on mixed storage : Keep in a cool place away from (strong) bases.

Storage area : Ensure that there is a suitable ventilation system. Store in a clean, dry, fire resistant area.

Special rules on packaging : Store in a closed container.

Packaging materials : Store always product in container of same material as original container. Do not store in

corrodable metal.

## 7.3. Specific end use(s)

Carefully comply with the instructions for use.

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

National occupational exposure and biological limit values

hydrogen chloride (7647-01-0)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Hydrogen chloride	
IOEL TWA	8 mg/m³	
	5 ppm	
IOEL STEL	15 mg/m³	
	10 ppm	
United Kingdom - Occupational Exposure Limits		
Local name	Hydrogen chloride	
WEL TWA (OEL TWA)	2 mg/m³ gas and aerosol mists	
	1 ppm gas and aerosol mists	
WEL STEL (OEL STEL)	8 mg/m³ gas and aerosol mists	
	5 ppm gas and aerosol mists	

#### **DNEL and PNEC**

hydrogen chloride (7647-01-0)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation 15 mg/m³		
Long-term - local effects, inhalation	8 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater) 36 µg/l		

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

hydrogen chloride (7647-01-0)	
PNEC aqua (marine water)	36 μg/l
PNEC aqua (intermittent, freshwater)	45 μg/l
PNEC (STP)	
PNEC sewage treatment plant 36 µg/l	

### 8.2. Exposure controls

### Appropriate engineering controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

### Personal protection equipment

## Personal protective equipment symbol(s):









#### Eye and face protection

#### Eye protection:

Safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses	Protection for Liquid particles, Droplet	With side shields	EN ISO 16321 CH

## Skin protection

#### Skin and body protection:

Chemical resistant apron. Chemical resistant safety shoes

Skin and body protection		
Туре	Standard	
Tyvek® Gown/Coveralls	EN 14605	
Safety shoes	EN ISO 20347	

### Hand protection:

Protective gloves

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0,4	2 (< 1.5)	EN 374-2

### **Respiratory protection**

## Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

#### **Environmental exposure controls**

#### **Environmental exposure controls:**

Carefully comply with the instructions for use. Avoid release to the environment. Dispose of contents/container in accordance with licensed collector's sorting instructions.

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

## **SECTION 9: Physical and chemical properties**

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

Physical state : Liquid : Colourless. Colour **Appearance** Clear.

Odour irritating/pungent odour.

Odour threshold Not available Melting point Not applicable Freezing point Not available Boiling point : Not available Flammability : Not applicable Lower explosion limit : Not available : Not available Upper explosion limit Flash point : Not available Auto-ignition temperature : Not available : Not available Decomposition temperature

рΗ : 1 pH solution concentration : 100 %

Viscosity, kinematic : < 19.048 mm<sup>2</sup>/s Viscosity, dynamic : < 20 mPa·s Solubility : completely soluble. Partition coefficient n-octanol/water (Log Kow) : Not available : Not available Vapour pressure Vapour pressure at 50°C : Not available Density : 1,05 g/cm<sup>3</sup> Relative density : Not available

Relative vapour density at 20°C : Not available Particle characteristics : Not applicable

## 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

## 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

metals.

#### 10.6. Hazardous decomposition products

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

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

## **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

hydrogen chloride (7647-01-0)	
LD50 oral rat	237 – 277 mg/kg
LD50 dermal	> 5010 mg/kg bodyweight
LC50 Inhalation - Rat	8,3 mg/l
Skin corresion/irritation : Causes skin irritation	

Skin corrosion/irritation : Causes skin irritation

pH: 1

Serious eye damage/irritation : Causes serious eye irritation.

pH: 1

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : May cause respiratory irritation.

hydrogen chloride (7647-01-0)		
STOT-single exposure	May ca	use respiratory irritation.
STOT-repeated exposure	: Not clas	sified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not clas	sified (Based on available data, the classification criteria are not met)
Roest- en kalkverwijderaar		

Roest- en kalkverwijderaar	
Viscosity, kinematic	< 19,048 mm²/s

### 11.2. Information on other hazards

No additional information available

### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Hazardous to the aquatic environment, short–term : Not classified (Based on available data, the classification criteria are not met)

acute)

Hazardous to the aquatic environment, long-term (chronic)

: Not classified (Based on available data, the classification criteria are not met)

(chronic)

hydrogen chloride (7647-01-0)	
LC50 - Fish [1] 3,25 mg/l	
EC50 - Other aquatic organisms [1] 4,92 mg/l waterflea	
EC50 - Other aquatic organisms [2]	4,5 mg/l

### 12.2. Persistence and degradability

Roest- en kalkverwijderaar	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

hydrogen chloride (7647-01-0)	
Persistence and degradability	Rapidly degradable

### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Regional waste regulation

Waste treatment methods

Product/Packaging disposal recommendations

: Disposal must be done according to official regulations.

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

: Dispose in a safe manner in accordance with local/national regulations. Empty containers can be dumped after cleaning according to local legislation. If recycling is not possible,

eliminate in accordance with local valid waste disposal regulations.

Ecological waste information

European List of Waste (LoW, EC 2000/532)

**HP** Code

: Avoid release to the environment.

: 20 01 29\* - detergents containing dangerous substances

: HP8 - "Corrosive:" waste which on application can cause skin corrosion.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

	Tabourdanie William Committee (William Committee)				
ADR	IMDG	IATA	ADN	RID	
14.1. UN number or ID n	umber				
UN 1789	UN 1789	UN 1789	UN 1789	UN 1789	
14.2. UN proper shippin	g name				
HYDROCHLORIC ACID	HYDROCHLORIC ACID	Hydrochloric acid	HYDROCHLORIC ACID	HYDROCHLORIC ACID	
Transport document descr	iption				
UN 1789 HYDROCHLORIC ACID, 8, III, (E)			UN 1789 HYDROCHLORIC ACID, 8, III	UN 1789 HYDROCHLORIC ACID, 8, III	
14.3. Transport hazard o	class(es)				
8	8	8	8	8	
8		8	8	8	
14.4. Packing group					
III	III	111	111	111	

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID	
14.5. Environmental haz	14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-A EmS-No. (Spillage): S-B	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No	
No supplementary information available					

## 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : C1
Special provisions (ADR) : 520
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1

(ADR)

Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80

Hazard identification number (Kemler No.) : 80
Orange plates :

80 1789

Tunnel restriction code (ADR) : E EAC code : 2R

## Transport by sea

Special provisions (IMDG) : 223

Packing instructions (IMDG) : P001, LP01

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1

Stowage category (IMDG) : C

Properties and observations (IMDG) : Colourless liquid. An aqueous solution of the gas hydrogen chloride. Highly corrosive to

most metals. Causes burns to skin, eyes and mucous membranes.

#### Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y841 PCA limited quantity max net quantity (IATA) 1L PCA packing instructions (IATA) : 852 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 856 CAO max net quantity (IATA) : 60L Special provisions (IATA) : A3 ERG code (IATA) : 8L

#### **Inland waterway transport**

Classification code (ADN) : C1
Special provisions (ADN) : 520
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Equipment required (ADN) : PP, EP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C1
Special provisions (RID) : 520
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1

(RID)

Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 80

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## **SECTION 15: Regulatory information**

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

#### **EU-Regulations**

### **REACH Annex XVII (Restriction List)**

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

#### **REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### **REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

#### **PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### **POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### **Dual-Use Regulation (428/2009)**

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

#### **Detergent Regulation (648/2004)**

Labelling of contents	
Component	%
anionic surfactants	<5%

#### **Explosives Precursors Regulation (2019/1148)**

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### **Drug Precursors Regulation (273/2004)**

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Hydrochloric acid	Hydrogen chloride	7647-01-0	2806 10 00	Category 3		Annex I

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Indication of changes		
Section	Changed item	Comments
	Supersedes	Modified
	Revision date	Modified
1.1	UFI on SDS 1.1	Added
1.2	Use of the substance/mixture	Added
1.2	Main use category	Modified
1.2	Use of the substance/mixture	Modified
1.2	Function or use category	Removed
2.2	EUH-statements	Removed
4.2	Symptoms/effects after skin contact	Modified
4.2	Symptoms/effects after eye contact	Modified
4.3	Other medical advice or treatment	Modified
5.1	Suitable extinguishing media	Modified
5.2	Hazardous decomposition products in case of fire	Modified
6.1	Emergency procedures	Modified
6.1	Protective equipment	Modified
6.2	Environmental precautions	Modified
6.3	Methods for cleaning up	Modified
6.4	Reference to other sections (8, 13)	Modified
7.1	Precautions for safe handling	Modified
7.1	Hygiene measures	Modified
7.2	Storage conditions	Modified
7.2	Packaging materials	Added
9	Concentration of the solution used for the pH measurement	Added
9	Flammability (solid, gas)	Added
9	Melting point	Added
10.4	Conditions to avoid	Modified
10.5	Incompatible materials	Modified
10.6	Hazardous decomposition products	Modified

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acr	onyms:
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
TLM	Median Tolerance Limit
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources

Other information

- : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:		
Eye Irrit. 2 Serious eye damage/eye irritation, Category 2		
H290	May be corrosive to metals.	

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:		
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H335	May cause respiratory irritation.	
Met. Corr. 1	Corrosive to metals, Category 1	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Met. Corr. 1 H290 Calculation method		
Skin Irrit. 2	H315	Expert judgement
Eye Irrit. 2	H319	Expert judgement
STOT SE 3	H335	Calculation method

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.