

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.8 Revision Date 14.03.2024 Print Date 04.05.2025

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : RBS™ 35 solution

Product Number : 83461

Brand : Sigma-Aldrich

UFI : MH22-56NP-8990-N21M

REACH No. : This product is a mixture. REACH Registration Number see

section 3.

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

Identified uses : Laboratory chemicals, Manufacture of substances Uses advised against : This product is not intended for consumer use.

1.3

CHEMIKART

# 1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

# **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Corrosive to Metals, (Category 1) H290: May be corrosive to metals.

Skin corrosion, (Sub-category H314: Causes severe skin burns and eye

1A) damage.

Serious eye damage, (Category H318: Causes serious eye damage.

1)

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Short-term (acute) aquatic H400: Very toxic to aquatic life.

hazard, (Category 1)

Long-term (chronic) aquatic H411: Toxic to aquatic life with long lasting

hazard, (Category 2) effects.

#### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word Danger

**Hazard Statements** 

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements** 

P234 Keep only in original packaging. P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face

protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable

for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing.

Supplemental Hazard information (EU)

EUH031 Contact with acids liberates toxic gas.

#### Reduced Labeling (<= 125 ml)

Pictogram

Signal Word Danger

**Hazard Statements** 

H314 Causes severe skin burns and eye damage.

**Precautionary Statements** 

P280 Wear protective gloves/ protective clothing/ eye protection/ face

protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable

for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

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Supplemental Hazard information (EU)

EUH031 Contact with acids liberates toxic gas.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

#### 3.2 Mixtures

Component		Classification	Concentration	
Dodecylbenzenesulphonic acid				
CAS-No. EC-No.	27176-87-0 248-289-4	Acute Tox. 4; Skin Corr. 1B; H302, H314	>= 5 - < 10 %	
	*			
Alcohol ethoxylate				
CAS-No. EC-No.	68551-12-2 500-221-7 *	Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 1; H315, H318, H400	>= 3 - < 10 %	
sodium hydroxide				
CAS-No. EC-No. Index-No. Registration number	1310-73-2 215-185-5 011-002-00-6 01-2119457892-27- XXXX	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318 Concentration limits: >= 5 %: Skin Corr. 1A, H314; 2 - < 5 %: Skin Corr. 1B, H314; 0,5 - < 2 %: Skin Irrit. 2, H315; 0,5 - < 2 %: Eye Irrit. 2, H319; >= 0,4 %: Met. Corr. 1, H290;	>= 5 - < 10 %	
sodium hypochlorite solution				
CAS-No. EC-No.	7681-52-9 231-668-3	Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; Aquatic	>= 5 - < 10 %	

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Index-No.	017-011-00-1 *	Acute 1; Aquatic Chronic 1; H290, H314, H318, H400, H410 Concentration limits: >= 5 %: , EUH031; M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1		
sodium carbonate				
CAS-No.	497-19-8	Eye Irrit. 2; H319	>= 1 - < 10	
EC-No.	207-838-8		%	
Index-No.	011-005-00-2			
Registration	01-2119485498-19-			
number	XXXX			
Tetrapotassium diphosphate				
CAS-No.	7320-34-5	Eye Irrit. 2; H319	>= 1 - < 10	
EC-No.	230-785-7		%	
	*			

<sup>\*</sup>A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **SECTION 4: First aid measures**

## 4.1 Description of first-aid measures

#### **General advice**

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

## In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

## Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sulfur oxides

Oxides of phosphorus

Hydrogen chloride gas

Potassium oxides

Sodium oxides

Mixture with combustible ingredients.

Development of hazardous combustion gases or vapours possible in the event of fire.

#### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

#### **6.2 Environmental precautions**

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

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#### 7.1 Precautions for safe handling

For precautions see section 2.2.

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

## Storage conditions

No metal containers.

Tightly closed.

Do not store near acids.

#### Storage class

Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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

#### 8.1 Control parameters

Ingredients with workplace control parameters

#### 8.2 Exposure controls

**Personal protective equipment** 

#### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail

sales@kcl.de, test method: EN374

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If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

protective clothing

## **Respiratory protection**

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### **Control of environmental exposure**

Do not let product enter drains.

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

# 9.1 Information on basic physical and chemical properties

a)	Physical state	liquid
b)	Color	white, milky
c)	Odor	No data available
d)	Melting point/freezing point	No data available
e)	Initial boiling point and boiling range	No data available
f)	Flammability (solid, gas)	No data available
g)	Upper/lower flammability or explosive limits	No data available
h)	Flash point	No data available
i)	Autoignition temperature	No data available
j)	Decomposition temperature	No data available
k)	рН	12,9 - 13,9
l)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available

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at 20 °C soluble m) Water solubility Partition coefficient: No data available n-octanol/water

o) Vapor pressure No data available p) Density No data available Relative density No data available q) Relative vapor No data available

density

No data available

r) Particle characteristics

s) Explosive properties Not classified as explosive.

t) Oxidizing properties

#### 9.2 Other safety information

No data available

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

#### 10.1 Reactivity

No data available

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

## 10.3 Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with: Acids

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

Strong oxidizing agentsMetals

## 10.6 Hazardous decomposition products

In the event of fire: see section 5

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

**Mixture** 

## **Acute toxicity**

Oral: No data available

Sigma-Aldrich- 83461 Page 8 of 18 Acute toxicity estimate Oral - > 2.000 mg/kg

(Calculation method)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of

perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of

respiratory tract

Dermal: No data available **Skin corrosion/irritation** 

Remarks: Mixture causes severe burns.

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.

Risk of blindness!

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

#### 11.2 Additional Information

#### **Endocrine disrupting properties**

#### **Product:**

Assessment The substance/mixture does not contain

> components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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#### Components

## **Dodecylbenzenesulphonic acid**

#### **Acute toxicity**

LD50 Oral - Rat - 650 mg/kg Inhalation: No data available Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit Result: Corrosive

## Serious eye damage/eye irritation

Eyes - Rabbit Result: Corrosive

## Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

## Carcinogenicity

No data available

# Reproductive toxicity

No data available

# Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

## **Aspiration hazard**

No data available

## **Alcohol ethoxylate**

## **Acute toxicity**

Oral: No data available Inhalation: No data available Dermal: No data available

# **Skin corrosion/irritation** Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

# Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

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#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

# Specific target organ toxicity - repeated exposure

No data available

#### **Aspiration hazard**

No data available

# sodium hydroxide

#### **Acute toxicity**

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible

damages:, damage of respiratory tract

Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns.

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

#### Serious eye damage/eye irritation

Eves - Rabbit

Result: Causes serious eye damage.

(OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Remarks: Causes serious eye damage.

## Respiratory or skin sensitization

Patch test: - In vitro study

Result: negative Remarks: (ECHA)

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Acute inhalation toxicity - burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

# Specific target organ toxicity - repeated exposure

No data available

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#### **Aspiration hazard**

No data available

# sodium hypochlorite solution

#### **Acute toxicity**

LD50 Oral - Rat - male - 1.100 mg/kg

(OECD Test Guideline 401) Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 20.000 mg/kg

(OECD Test Guideline 402)

#### Skin corrosion/irritation

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table

3.1/3.2)

## Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

## Respiratory or skin sensitization

- Guinea pig

Result: Not a skin sensitizer. (OECD Test Guideline 406)

#### Germ cell mutagenicity

Result: negative

Method: Mutagenicity (micronucleus test)

Species: Mouse - male Result: negative

## Carcinogenicity

No data available

#### Reproductive toxicity

No data available

## Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

#### **Aspiration hazard**

No data available

#### sodium carbonate

#### **Acute toxicity**

LD50 Oral - Rat - male and female - 2.800 mg/kg

Remarks: (ECHA)

Inhalation: No data available

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LD50 Dermal - Rabbit - > 2.000 mg/kg (US-EPA)

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation (US-EPA)

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

## Reproductive toxicity

No data available

## Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

# **Aspiration hazard**

No data available

# Tetrapotassium diphosphate

#### **Acute toxicity**

Oral: No data available Inhalation: No data available Dermal: No data available

## Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

# Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

## Respiratory or skin sensitization

No data available

## Germ cell mutagenicity

No data available

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#### Carcinogenicity

No data available

# **Reproductive toxicity**

No data available

# Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

#### **Aspiration hazard**

No data available

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### Mixture

No data available

## 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

# 12.4 Mobility in soil

No data available

# 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# 12.6 Endocrine disrupting properties

#### **Product:**

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

No data available

#### **Components**

#### **Dodecylbenzenesulphonic acid**

No data available

#### Alcohol ethoxylate

No data available

## sodium hydroxide

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Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Ceriodaphnia (water flea) - 40,4 mg/l - 48 h

Remarks: (ECHA)

Toxicity to bacteria EC50 - Photobacterium phosphoreum - 22 mg/l - 15 min

Remarks: (External MSDS)

sodium hypochlorite solution

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0,08 mg/l -

96 h

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

(ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0,04 mg/l - 48 h Remarks: (Regulation (EC) No 1272/2008, Annex VI)

(ECOTOX Database)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0,036 mg/l

- 72 h

(OECD Test Guideline 201)

static test EC10 - Pseudokirchneriella subcapitata - 0,02 mg/l -

72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 77,1 mg/l - 3 h

(OECD Test Guideline 209)

Remarks: (ECHA)

sodium carbonate

Toxicity to fish static test LC50 - Lepomis macrochirus (Bluegill sunfish) - 300

mg/l - 96 h Remarks: (ECHA)

Toxicity to daphnia and other aquatic

semi-static test EC50 - Ceriodaphnia (water flea) - 220 - 227

aquatic mg/l - 48 h

invertebrates Remarks: (ECHA)

## **Tetrapotassium diphosphate**

No data available

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#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

No data available

#### **SECTION 14: Transport information**

14.1 UN number

ADR/RID: 3266 IMDG: 3266 IATA: 3266

14.2 UN proper shipping name

ADR/RID: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, sodium

hypochlorite solution)

IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, sodium

hypochlorite solution)

IATA: Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium hypochlorite

solution)

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user

Tunnel restriction code : (E)

Further information : No data available

#### **SECTION 15: Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Authorisations and/or restrictions on use

# **National legislation**

Seveso III: Directive 2012/18/EU of the E1 ENVIRONMENTAL HAZARDS European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

#### Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

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#### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

EUH031	Contact with acids liberates toxic gas.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

#### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM -American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System: GLP - Good Laboratory Practice: IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. -Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS -Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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# Classification of the mixture Classification procedure:

Met. Corr.1	H290	Calculation method
Skin Corr.1A	H314	Calculation method
Eye Dam.1	H318	Calculation method
Aquatic Acute1	H400	Calculation method
Aquatic Chronic2	H411	Calculation method

#### **Further information**

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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