



# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 03/04/2023 Revision date: 31/01/2025 Supersedes version of: 03/04/2023 Version: 2.0

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

#### 1.1. Product identifier

Product form : Substance

Substance name : Etilefrine hydrochloride Chemical name : Etilefrine hydrochloride

EC-No. : 213-398-8 CAS-No. : 943-17-9 Product code : 201600364

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

Relevant identified uses

Use of the substance/mixture : Scientific research and development

Technical testing and analysis For professional use only

Function or use category : Laboratory chemicals

Uses advised against

Restrictions on use : Not for food, drug or home use

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

European Directorate for the Quality of Medicines & Healthcare

EDQM, Council of Europe 7, Allée Kastner, CS30026 F 67081 Strasbourg

France

T +33(0)388412035, F +33(0)388412771

sds@edqm.eu, www.edqm.eu

# 1.4. Emergency telephone number

Emergency number : +33(0)390215608

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 3 H301 Hazardous to the aquatic environment – Chronic Hazard, H412

Category 3

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

# Adverse physicochemical, human health and environmental effects

Toxic if swallowed. Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS06

Signal word (CLP) : Danger

Hazard statements (CLP) : H301 - Toxic if swallowed.

H412 - Harmful to aquatic life with long lasting effects.

# Safety Data Sheet

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

Precautionary statements (CLP) : P264 - Wash hands, forearms and face thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P273 - Avoid release to the environment.

P301+P310 - IF SWALLOWED: Immediately call a doctor.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth. P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

Labelling according to: Exemption for inner packaging where the contents do not exceed 10ml.

Hazard pictograms (CLP)



### 2.3. Other hazards

Other hazards which do not result in classification

Other information

: Cardiac and blood circulation effects.

Contains: Active substance (in pharmaceutical products/Pharmaceutical product used as

cardiovascular drug).

Active substance (in pharmaceutical products). Warning - substance not yet tested completely.

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

#### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Etilefrine hydrochloride	CAS-No.: 943-17-9 EC-No.: 213-398-8	≤ 100	Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Aquatic Chronic 3, H412

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 : In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest. If

the person feels unwell: Get medical advice/attention.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water,

followed by warm water rinse.

First-aid measures after eye contact : Rinse with water while holding the eyes wide open. Obtain medical attention if pain, blinking

or redness persists.

First-aid measures after ingestion : Rinse mouth out with water (only if the person is conscious). Never give anything by mouth

to an unconscious person. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Cardiac disorders.

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

No additional information available

### Safety Data Sheet

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

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

#### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Carbon dioxide. Water spray. Dry

powder. Extinguishing blanket.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other

toxic gases. Toxic fumes may be released.

#### 5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

# **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin, eyes and clothing.

For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

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. Prevent entry to sewers and public waters.

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

For containment : Absorb with an inert material and place in an appropriate waste disposal container.

Methods for cleaning up : Clean contaminated surfaces with an excess of water. Clean with the help of detergents.

### 6.4. Reference to other sections

See Section 13 for disposal information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Ensure good ventilation of the work station.

Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Wash hands before work breaks and after finishing work.

# 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep away from heat and

direct sunlight.

Packaging materials : Keep in original containers.

# 7.3. Specific end use(s)

No additional information available

31/01/2025 (Revision date) EN (English) 3/10

# Safety Data Sheet

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

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

#### 8.1. Control parameters

No additional information available

# 8.2. Exposure controls

#### **Appropriate engineering controls**

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Both local exhaust and general room ventilation are usually required. Material should be handled in a laboratory hood whenever possible.

#### Personal protection equipment

#### Eye and face protection

#### Eye protection:

Wear eye protection. Safety glasses with side shields. (EN 166)

#### Skin protection

#### Skin and body protection:

Wear suitable protective clothing. Laboratory use: Lab coat. (EN 13034)

#### Hand protection:

Wear suitable gloves. Chemically resistant protective gloves. (EN 374)

#### **Respiratory protection**

#### Respiratory protection:

In case of dust formation use respirator with filter: P3

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

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

Physical state : Solid

Colour : white. almost white.

Appearance : Crystalline powder. Crystals.

: 217.7 g/mol Molecular mass : Not available Odour Odour threshold : Not available : ≈ 120 °C Melting point : Not available Freezing point : Not available Boiling point Flammability : Not available Lower explosion limit : Not applicable Upper explosion limit : Not applicable Flash point : Not applicable Auto-ignition temperature : Not applicable Decomposition temperature : Not available : 5 (100 g/l) pH solution : Not available Viscosity, kinematic : Not applicable

Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available Density : Not available Relative density : Not available Relative vapour density at 20°C : Not applicable Particle size : Not available

# 9.2. Other information

Solubility

No additional information available

: Water: 100 - 1000 g/l

### Safety Data Sheet

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

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

### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

No additional information available

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

# **SECTION 11: Toxicological information**

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

Acute toxicity (oral) : Toxic if swallowed.

Acute toxicity (dermal) : Not classified (Lack of data)

Acute toxicity (inhalation) : Not classified (Lack of data)

**Etilefrine hydrochloride (943-17-9)** 

LD50 oral rat > 50 − ≤ 300 mg/kg (estimated value)

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

pH: 5 (100 g/l)

Serious eye damage/irritation : Not classified (Lack of data)

pH: 5 (100 g/l)

Respiratory or skin sensitisation : Not classified (Lack of data)

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

Carcinogenicity : Not classified (Lack of data)
Reproductive toxicity : Not classified (Inconclusive data)
STOT-single exposure : Not classified (Lack of data)

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

Aspiration hazard : Not classified (Lack of data)

#### 11.2. Information on other hazards

No additional information available

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

### 12.1. Toxicity

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 : Harmful to aquatic life with long lasting effects.

(chronic)

# Etilefrine hydrochloride (943-17-9) EC50 - Crustacea [1] 14.5 mg/l (48 Hours, Daphnia magna (Water flea)) (OECD 202 method)

31/01/2025 (Revision date) EN (English) 5/10

# Safety Data Sheet

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

# 12.2. Persistence and degradability

### **Etilefrine hydrochloride (943-17-9)**

Persistence and degradability Not 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

No additional information available

# **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA		
14.1. UN number or ID number				
UN 2811	UN 2811	UN 2811		
14.2. UN proper shipping name	14.2. UN proper shipping name			
TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.	Toxic solid, organic, n.o.s.		
Transport document description				
UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E)	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III	UN 2811 Toxic solid, organic, n.o.s., 6.1, III		
14.3. Transport hazard class(es)				
6.1	6.1	6.1		
6	6	6		
14.4. Packing group				
Ш	III	III		

# Safety Data Sheet

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

ADR	IMDG	IATA
4.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-A EmS-No. (Spillage): S-A	Dangerous for the environment: No

#### 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : T2
Special provisions (ADR) : 274, 614
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T1
Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR): SGAH, L4BHTank special provisions (ADR): TU15, TE19Vehicle for tank carriage: AT

Transport category (ADR) : 2

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7 Special provisions for carriage - Loading, unloading : CV13, CV28

and handling (ADR)

Special provisions for carriage - Operation (ADR)  $\phantom{0}$ : S9 Hazard identification number (Kemler No.)  $\phantom{0}$ :  $\phantom{0}$ 60

Orange plates :

60 2811

Tunnel restriction code (ADR) : E

### Transport by sea

Special provisions (IMDG) : 223, 274 Limited quantities (IMDG) : 5 kg Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : P002 IBC packing instructions (IMDG) : IBC08 IBC special provisions (IMDG) : B3 Tank instructions (IMDG) : T1 Tank special provisions (IMDG) TP33 : Stowage category (IMDG) : A

Properties and observations (IMDG) : Toxic if swallowed, by skin contact or by inhalation.

#### Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y645 PCA limited quantity max net quantity (IATA) 10kg PCA packing instructions (IATA) 670 PCA max net quantity (IATA) : 100kg CAO packing instructions (IATA) : 677 : 200kg CAO max net quantity (IATA) Special provisions (IATA) : A3, A5 ERG code (IATA) : 6L

# Safety Data Sheet

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

### 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)**

Not listed on REACH Annex XVII

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

Not listed on REACH Annex XIV (Authorisation List)

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

Not listed on the REACH Candidate List

### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

#### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

#### **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 no 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)

#### 15.2. Chemical safety assessment

No additional information available

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

Indication of changes		
Section	Changed item	Comments
	Supersedes version of	Added
	Revision date	Added
1.1	EC-No.	Added
1.1	CAS-No.	Added
1.1	Synonyms	Removed
1.1	Name	Modified
1.2	Restrictions on use	Modified
1.2	Use of the substance/mixture	Modified
1.2	Main use category	Removed
2.1	Adverse physicochemical, human health and environmental effects	Modified
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified
2.2	Precautionary statements (CLP)	Modified

# Safety Data Sheet

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

Section Changed Item 2.2	Indication of changes		
23 Other Information Added 23 Other Information Other hazards which do not result in classification of	Section	Changed item	Comments
23 Cher hazards which do not result in classification 4.1 First-aid measures general 4.1 First-aid measures after six contact 4.1 First-aid measures after injection 4.1 First-aid measures after ve contact 4.2 Symptoms/effects after injection 4.2 Symptoms/effects after exist contact 4.2 Symptoms/effects after exist contact 4.2 Symptoms/effects after exist contact 4.3 Other medical advice or treatment 4.3 Other medical advice or treatment 4.5 Removed 4.5 Unsuitable extinguishing media 4.6 Modified 4.7 Hirachous decomposition products in case of fire 4.8 Fire hazard 4.9 Added 4.0 Fire hazard 4.0 Fire hazard 4.0 Fire hazard 4.1 Removed 4.2 Fire hazard 4.2 Fire hazard 4.3 Protection during firefighting 4.4 Added 4.1 Emergency procedures 4.4 Added 4.1 Emergency procedures 4.6 Added 4.1 General measures 4.7 Modified 4.8 Reference to other sections (8, 13) 4.7 Added 4.8 Reference to other sections (8, 13) 4.8 Added 4.9 Reference to other sections (8, 13) 4.1 Added 4.1 Hygiene measures 4.2 Removed 4.3 Removed 4.4 Reference to other sections (8, 13) 4.7 Added 4.8 Reference to other sections (8, 13) 4.8 Added 4.9 Packaging materials 4.9 Added 4.1 Hygiene measures 4.0 Modified 4.1 Hygiene measures 4.1 Hygiene measures 4.2 Removed 4.3 Removed 4.4 Removed 4.5 Removed 4.6 Removed 4.7 Removed 4.7 Removed 4.8 Removed 4.9 Removed 4.9 Removed 4.0 Removed 4.0 Removed 4.0 Removed 4.1 Hygiene measures 4.0 Modified 4.1 Reference to duses 4.0 Removed 4.1 Removed 4.2 Removed 4.2 Removed 4.3 Removed 4.4 Removed 4.5 Removed 4.6 Removed 4.7 Removed 4.8 Removed 4.9 Removed 4.9 Removed 4.0 R	2.2	Hazard statements (CLP)	Modified
classification   First-aid measures general   Added	2.3	Other information	Added
4.1 First-aid measures after skin contact Modified 4.1 First-aid measures after inhalation Modified 4.1 First-aid measures after inpation Modified 4.1 First-aid measures after ingestion Modified 4.2 Symptoms/elfects after skin contact Removed 4.2 Symptoms/elfects after eye contact Removed 4.3 Other medical advice or treatment Removed 4.3 Unsuitable extinguishing media Added 5.1 Unsuitable extinguishing media Modified 5.2 Hazardous decomposition products in case of life Fire hazard Removed 5.3 Protection during firefighting Added 5.3 Firefighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 Emergency procedures Added 6.2 Environmental precautions Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 6.5 Reference to other sections (8, 13) Added 6.7 Reference to other sections (8, 13) Added 6.7 Procautions for safe handling Modified 6.7 Precautions for safe handling Modified 6.7 Technical measures Modified 6.8 Reference to other sections (8, 13) Added 6.9 Precautions for safe handling Modified 6.1 Hygiene measures Modified 6.2 Technical measures Removed 6.3 Storage conditions Modified 6.4 Respiratory protection Modified 6.5 Removed 6.6 Respiratory protection Modified 6.7 Removed 6.8 Respiratory protection Modified 6.9 Hand protection	2.3		Added
4.1 First-aid measures after inhalation Modified 4.1 First-aid measures after ingestion Modified 4.1 First-aid measures after ingestion Modified 4.2 Symptoms/effects after ingestion Removed 4.2 Symptoms/effects after inhalation Removed 4.2 Symptoms/effects after inhalation Removed 4.2 Symptoms/effects after inhalation Removed 4.3 Other medical advice or treatment Removed 4.3 Other medical advice or treatment Removed 5.1 Unsultable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of firer 5.2 Fire hazard Removed 5.3 Priorighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.4 Reference to other sections (8.13) Added 6.4 Reference to other sections (8.13) Added 6.4 Reference to other sections (8.13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.3 Specific end uses 8. Removed 8. Removed 8. Storage conditions Modified 8. Removed 8	4.1	First-aid measures general	Added
4.1 First-aid measures after ingestion Modified 4.1 First-aid measures after eye contact Modified 4.2 Symptoms/effects after ingestion Removed 4.2 Symptoms/effects after skin contact Removed 4.2 Symptoms/effects after inhalation Removed 4.2 Symptoms/effects after inhalation Removed 4.3 Other medical advice or treatment Removed 5.1 Unsuitable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 6.1 Protective equipment Added 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.3 Specific end uses Removed 7.4 Technical measures Removed 7.5 Removed 7.6 Removed 7.7 Technical measures Removed 7.8 Removed 7.9 Precautions for safe handling Modified 7.1 Hygiene measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Hand protection Modified	4.1	First-aid measures after skin contact	Modified
4.1 First-laid measures after eye contact 4.2 Symptoms/effects after injestion 4.2 Symptoms/effects after skin contact 4.2 Symptoms/effects after inhalation 4.2 Symptoms/effects after inhalation 4.2 Symptoms/effects after eye contact 4.3 Symptoms/effects after eye contact 4.3 Chter medical advice or treatment 4.3 Cuther medical advice or treatment 5.1 Unsuitable extinguishing media 5.1 Suitable extinguishing media 6.1 Hazardous decomposition products in case of fire 6.2 Fire hazard 6.3 Protection during firefighting 6.1 Protective equipment 6.1 Emergency procedures 6.1 Emergency procedures 6.1 General measures 6.1 General measures 6.2 Environmental precautions 6.3 For containment 6.4 Reference to other sections (8, 13) 6.4 Reference to other sections (8, 13) 6.4 Reference to other sections (8, 13) 6.5 Proceduical measures 6.6 Modified 6.7 Procautions for safe handling 6.7 Removed 6.8 Removed 6.9 Procautions for safe handling 6.0 Removed 6.1 Regrency of the sections (8, 13) 6.1 Regrency of the sections (8, 13) 6.2 Respiratory protection 6.3 Modified 6.4 Reference to other sections (8, 13) 6.5 Removed 6.7 Removed 6.7 Removed 6.8 Removed 6.9 Respiratory protection 6.0 Modified 6.0 Reproduction Modified 6.0 Reproduction Modified 6.1 Reproduction Modified 6.2 Removed 6.3 Removed 6.4 Reprincial measures 6.4 Removed 6.5 Removed 6.6 Removed 6.7 Removed 6.8 Removed 6.9 Removed 6.0 Removed 6.0 Removed 6.0 Removed 6.0 Removed 6.1 Removed 6.1 Removed 6.2 Removed 6.3 Removed 6.3 Removed 6.4 Reference to defere after the addition to the section of the section of the	4.1	First-aid measures after inhalation	Modified
4.2 Symptoms/effects after ingestion Removed 4.2 Symptoms/effects after skin contact Removed 4.2 Symptoms/effects after skin contact Removed 4.2 Symptoms/effects after eye contact Removed 4.3 Other medical advice or treatment Removed 5.1 Unsuitable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fine 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.3 Specific end uses Removed 7.4 Storage conditions Modified 7.5 Removed 7.6 Storage conditions Modified 7.7 Technical measures Removed 7.8 Storage conditions Modified 7.9 Packaging materials Added 7.1 Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 7.4 Respiratory protection Modified 7.5 Removed 7.6 Removed 7.7 Storage conditions Modified 7.8 Removed 7.9 Respiratory protection Modified 7.0 Reportate engineering controls Modified	4.1	First-aid measures after ingestion	Modified
4.2 Symptoms/effects after skin contact Removed 4.2 Symptoms/effects after inhalation Removed 4.3 Other medical advice or treatment Removed 5.1 Unsuitable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fire 6.2 Fire hazard Removed 6.3 Protection during firefighting Added 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 6.5 Reference to other sections (8, 13) Added 6.1 Proteautions for safe handling Modified 6.1 Methods for cleaning up Modified 6.2 Removed 6.3 Methods for sections (8, 13) Added 6.4 Reference to other sections (8, 13) Added 6.5 Removed 6.7 Procautions for safe handling Modified 6.7 Procautions for safe handling Modified 6.8 Removed 6.9 Procautions for safe handling Modified 6.1 Repeasures Modified 6.2 Removed 6.3 Removed 6.4 Repeasures Removed 6.5 Removed 6.6 Removed 6.7 Removed 6.8 Removed 6.9 Packaging materials Added 6.0 Removed 6.1 Repeasures Modified 6.1 Repeasures Removed 6.2 Respiratory protection Modified 6.3 Modified 6.4 Repeasures Removed 6.5 Removed 6.6 Removed 6.7 Removed 6.8 Removed 6.9 Respiratory protection Modified 6.9 Respiratory protection Modified 6.9 Respiratory protection Modified 6.1 Replacement and the series of	4.1	First-aid measures after eye contact	Modified
4.2 Symptoms/effects after inhalation Removed 4.2 Symptoms/effects after eye contact Removed 4.3 Other medical advice or treatment Removed 5.1 Unsuitable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 5.3 Firefighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Practions research and Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.3 Specific end uses Removed 7.4 Technical measures Removed 7.5 Removed 7.6 Removed 7.7 Technical measures Removed 7.8 Removed 7.9 Packaging materials Added 7.0 Respiratory protection Modified 7.1 Respiratory protection Modified 7.2 Respiratory protection Modified 7.3 Specific end uses Removed 7.4 Respiratory protection Modified 7.5 Respiratory protection Modified 7.6 Respiratory protection Modified 7.7 Respiratory protection Modified 7.8 Respiratory protection Modified	4.2	Symptoms/effects after ingestion	Removed
4.2 Symptoms/effects after eye contact 4.3 Other medical advice or treatment 5.1 Unsuitable extinguishing media 5.1 Suitable extinguishing media 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard 6.3 Protection during firefighting 6.1 Protective equipment 6.1 Emergency procedures 6.2 Environmental precautions 6.1 General measures 6.3 For containment 6.4 Environmental precautions 6.5 Added 6.6 Environmental precautions 6.7 Added 6.8 Reference to other sections (8, 13) 6.4 Reference to other sections (8, 13) 6.5 Removed 6.7 Practions or safe handling 6.7 Practions or safe handling 6.8 Modified 6.9 Reference to other sections (8, 13) 6.0 Added 6.1 Reference to other sections (8, 13) 6.1 Additional hazards when processed 6.1 Removed 6.2 Removed 6.3 Removed 6.4 Reference to other sections (8, 13) 6.5 Removed 6.6 Reference to other sections (8, 13) 6.7 Removed 6.8 Removed 6.9 Removed 6.1 Resultions for safe handling 6.1 Reference to Removed 6.2 Removed 6.3 Removed 6.4 Respiratory protection 6.5 Removed 6.6 Removed 6.7 Removed 6.8 Removed 6.9 Respiratory protection 6.0 Modified 6.1 Removed 6.2 Respiratory protection 6.3 Modified 6.4 Removed 6.5 Removed 6.6 Removed 6.7 Removed 6.8 Removed 6.9 Removed 6.9 Removed 6.9 Removed 6.9 Respiratory protection 6.0 Modified 6.1 Reference to Modified 6.1 Removed 6.2 Respiratory protection 6.1 Removed 6.2 Respiratory protection 6.2 Respiratory protection 6.3 Modified 6.4 Reference to differ engineering controls 6.4 Modified	4.2	Symptoms/effects after skin contact	Removed
4.3 Other medical advice or treatment Removed 5.1 Unsuitable extinguishing media Added 5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 5.3 Firefighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.3 Specific end uses Removed 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	4.2	Symptoms/effects after inhalation	Removed
5.1 Unsuitable extinguishing media 5.1 Suitable extinguishing media 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 5.3 Firefighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.3 Specific end uses Removed 7.4 Seprence of the sections (8, 13) Added 7.5 Specific end uses Removed 7.6 Specific end uses Removed 7.7 Specific end uses Removed 7.8 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Hand protection Modified 8.2 Hand protection Modified	4.2	Symptoms/effects after eye contact	Removed
5.1 Suitable extinguishing media Modified 5.2 Hazardous decomposition products in case of fire 5.2 Fire hazard Removed 5.3 Protection during firefighting Added 5.3 Firefighting instructions Modified 6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 For containment Added 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.3 Specific end uses Removed 7.4 Storage conditions Modified 7.5 Storage conditions Modified 7.6 Removed 7.7 Storage conditions Modified 7.8 Removed 7.9 Packaging materials Added 7.1 Removed 7.2 Removed 7.3 Specific end uses Removed 7.4 Respiratory protection Modified 7.5 Removed 7.6 Removed 7.7 Removed 7.7 Removed 7.8 Removed 7.9 Removed 7.9 Removed 7.1 Respiratory protection Modified 7.1 Hand protection Modified 7.2 Respiratory protection Modified 7.3 Removed 7.4 Respiratory protection Modified 7.5 Appropriate engineering controls Modified	4.3	Other medical advice or treatment	Removed
Fire hazard Removed  Firefighting instructions Modified  Firefighting instructions in Case Added  Firefighting instructions in Case Added  Firefighting instructions Modified  Firefighting instructions Modified  Firefighting instructions Modified  Firefighting instructions in Case Added  Firefighting instructions instructions in Case Added  Firefighting	5.1	Unsuitable extinguishing media	Added
fire  5.2 Fire hazard Removed  5.3 Protection during firefighting Added  5.3 Firefighting instructions Modified  6.1 Protective equipment Added  6.1 Emergency procedures Added  6.1 General measures Modified  6.2 Environmental precautions Added  6.3 For containment Added  6.4 Reference to other sections (8, 13) Added  7.1 Additional hazards when processed Removed  7.1 Precautions for safe handling Modified  7.2 Packaging materials Added  7.2 Technical measures Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified  8.2 Appropriate engineering controls Modified  8.2 Madded  8.3 Modified  8.4 Modified  8.4 Modified  8.5 Modified  8.6 Modified  8.7 Modified  8.8 Modified  8.9 Modified  8.9 Modified	5.1	Suitable extinguishing media	Modified
Firefighting instructions  Modified  Firefighting instructions  Modified  Frotective equipment  Added  Frotective equipment  Added  Femergency procedures  Added  General measures  Modified  Environmental precautions  Added  For containment  Added  Added  Reference to other sections (8, 13)  Added  Additional hazards when processed  Frecautions for safe handling  Modified  Added  Precautions for safe handling  Modified  For ence to other sections  For containment  Added  Removed  For ence to other sections  Modified  Removed  Removed  Removed  Removed  Removed  Removed  Added	5.2		Added
Firefighting instructions  Modified  6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified Modified 8.2 Appropriate engineering controls Modified Modified Modified	5.2	Fire hazard	Removed
6.1 Protective equipment Added 6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	5.3	Protection during firefighting	Added
6.1 Emergency procedures Added 6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Appropriate engineering controls Modified 8.2 Appropriate engineering controls Modified	5.3	Firefighting instructions	Modified
6.1 General measures Modified 6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Appropriate engineering controls Modified 8.2 Appropriate engineering controls Modified	6.1	Protective equipment	Added
6.2 Environmental precautions Added 6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Appropriate engineering controls Modified 8.2 Appropriate engineering controls Modified Modified	6.1	Emergency procedures	Added
6.3 For containment Added 6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	6.1	General measures	Modified
6.3 Methods for cleaning up Modified 6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	6.2	Environmental precautions	Added
6.4 Reference to other sections (8, 13) Added 7.1 Additional hazards when processed Removed 7.1 Precautions for safe handling Modified 7.1 Hygiene measures Modified 7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	6.3	For containment	Added
7.1 Additional hazards when processed Removed  7.1 Precautions for safe handling Modified  7.1 Hygiene measures Modified  7.2 Packaging materials Added  7.2 Technical measures Removed  7.2 Storage conditions Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	6.3	Methods for cleaning up	Modified
7.1 Precautions for safe handling Modified  7.1 Hygiene measures Modified  7.2 Packaging materials Added  7.2 Technical measures Removed  7.2 Storage conditions Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	6.4	Reference to other sections (8, 13)	Added
7.1 Hygiene measures Modified  7.2 Packaging materials Added  7.2 Technical measures Removed  7.2 Storage conditions Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	7.1	Additional hazards when processed	Removed
7.2 Packaging materials Added 7.2 Technical measures Removed 7.2 Storage conditions Modified 7.3 Specific end uses Removed 8.2 Respiratory protection Modified 8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	7.1	Precautions for safe handling	Modified
7.2 Technical measures Removed  7.2 Storage conditions Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	7.1	Hygiene measures	Modified
7.2 Storage conditions Modified  7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	7.2	Packaging materials	Added
7.3 Specific end uses Removed  8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	7.2	Technical measures	Removed
8.2 Respiratory protection Modified  8.2 Hand protection Modified  8.2 Appropriate engineering controls Modified	7.2	Storage conditions	Modified
8.2 Hand protection Modified 8.2 Appropriate engineering controls Modified	7.3	Specific end uses	Removed
8.2 Appropriate engineering controls Modified	8.2	Respiratory protection	Modified
	8.2	Hand protection	Modified
8.2 Eye protection Modified	8.2	Appropriate engineering controls	Modified
	8.2	Eye protection	Modified

# Safety Data Sheet

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

Indication of changes		
Section	Changed item	Comments
8.2	Skin and body protection	Modified
9	Molecular mass	Added
9	Melting point	Added
9	Colour	Added
9	рН	Added
9	Odour	Removed
9	Appearance	Modified
10.1	Reactivity	Removed
10.5	Incompatible materials	Removed
10.6	Hazardous decomposition products	Removed
11.1	ATE CLP (oral)	Modified
11.1	LD50 oral rat	Modified
12.1	Ecology - general	Removed
12.1	EC50 - Crustacea [1]	Added
13.1	Product/Packaging disposal recommendations	Removed
13.1	Regional waste regulation	Removed

Full text of H- and EUH-statements:		
Acute Tox. 3 (Oral)	. 3 (Oral) Acute toxicity (oral), Category 3	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
H301	Toxic if swallowed.	
H412	Harmful to aquatic life with long lasting effects.	

Safety Data Sheet (SDS), EU

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. 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.