

Safety Data Sheet

Draker ONE

Safety Data Sheet dated 15/11/2023 version 8

In accordance with Regulation (UE) 2020/878



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

1.1. Product identifier

Mixture identification:

Trade name: Draker ONE

UFI: HS60-X02X-X002-WG24

Authorization of Ministry of Health n° : NA

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

Recommended use: Insecticide-Biocide

Uses advised against: All uses not listed in the Recommended uses

1.3. Details of the supplier of the safety data sheet

Company: VEBI ISTITUTO BIOCHIMICO SRL

Via Desman, 43 - 35010 Borgoricco (PD)

Tel. +39 049 9337111 - www.vebi.it

Responsible: regulatory@vebi.it

1.4. Emergency telephone number

United Kingdom Emergency number: 111

Ireland National Poisons Information Centre: 353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week). Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

VEBI ISTITUTO BIOCHIMICO customer service: Tel. +39 49 9337111 8:00-12:00- 13:00- 17:00

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

STOT RE 2 May cause damage to organs (nervous system) through prolonged or repeated exposure.

Aquatic Acute 1 Very toxic to aquatic life.

Aquatic Chronic 1 Very toxic to aquatic life with long lasting effects.

Met. Corr. 1 May be corrosive to metals.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word



Warning

Hazard statements

H290 May be corrosive to metals.

H373 May cause damage to organs (nervous system) through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P234 Keep only in original packaging.

P260	Do not breathe spray.
P273	Avoid release to the environment.
P314	Get medical advice/attention if you feel unwell.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents and container in accordance with national regulation.

Special Provisions:

PACK2 The packing must have tactile indications of danger for blind people.

Contains

cypermethrin cis/trans +/-40/60; (RS)-
alfa-cyano-3-phenoxybenzyl (1RS,3RS;
1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-
dimethylcyclopropanecarboxylate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances
present in concentration >= 0.1%.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: Draker ONE

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 10 - < 12,5 %	cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	CAS:52315-07-8 EC:257-842-9 Index:607-421-00-4	3.1/4/Inhal Acute Tox. 4, H332 3.1/4/Oral Acute Tox. 4, H302 3.8/3 STOT SE 3, H335 3.9/2 STOT RE 2, H373 4.1/A1 Aquatic Acute 1, H400 4.1/C1 Aquatic Chronic 1, H410, M- Chronic:100000, M-Acute:100000 Acute Toxicity Estimate: ATE - Oral: 500mg/kg bw ATE - Inhalation (Dust/mist): 3.3mg/l	
≥ 0,1 - < 0,25 %	bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS:52-51-7 EC:200-143-0 Index:603-085-00-8	3.8/3 STOT SE 3, H335; 3.2/2 Skin Irrit. 2, H315; 3.3/1 Eye Dam. 1, H318; 4.1/A1 Aquatic Acute 1, H400; 3.1/4/Oral Acute Tox. 4, H302; 3.1/4/Dermal Acute Tox. 4, H312, M:10	01-2119980938-15-XXXX

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
- Wash thoroughly the body (shower or bath).
- Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:

- Wash immediately with water.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

- Remove casualty to fresh air and keep warm and at rest.

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

Symptoms associated with exposure to pyrethroid compounds include skin and eye irritation, irritability to sound or touch, abnormal facial sensation, sensation of prickling, tingling, or creeping on skin, numbness, headache, dizziness, nausea, vomiting, diarrhea, salivation, and fatigue. At very high levels of exposure, muscle twitching and fluid accumulation in the lungs may occur. The product contains Cypermethrin. It can cause paraesthesia

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water. Carbon dioxide (CO₂). CO₂ or Dry chemical fire extinguisher

Extinguishing media which must not be used for safety reasons:

direct water jets

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases. Burning produces heavy smoke

Hazardous combustion products:

Carbon monoxide; Inorganic acid gases

5.3. Advice for firefighters

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use suitable breathing apparatus

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

See protective measures under point 7 and 8. Remove persons to safety. Wear personal protection equipment

For emergency responders:

Fist-gloves. Evacuate the danger area

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

For cleaning up:

Wash with plenty of water. Clear spills immediately

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists. Before making transfer operations, assure that there aren't any incompatible material residuals in the containers. Do not use on extensive surface areas in premises where there are occupants

Advice on general occupational hygiene:

Wash hands after use; Do not eat, drink or smoke when using this product. Contaminated clothing should be changed before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

Avoid light and sunlight exposure; Avoid temperatures > 40°C; Avoid Temperatures < 0°C

Do not pour the product into other containers. Always use the original container.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Predicted No Effect Concentration (PNEC) values

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 Exposure Route: Fresh Water; PNEC Limit: 0.000001 mg/l

Remark: assessment factor (10)

Exposure Route: Freshwater sediments; PNEC Limit: 0.0125 mg/Kgwwt

Remark: koc=575000

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol

CAS: 52-51-7

Exposure Route: Fresh Water; PNEC Limit: 0.001 mg/l

Remark: Extrapolation method:assessment factor

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0 mg/l

Exposure Route: sewage treatment plants; PNEC Limit: 0.43 mg/l

Remark: Extrapolation method:assessment factor

Exposure Route: Marine water sediments; PNEC Limit: 0.009 mg/kg/Sediment dw

Remark: Extrapolation method:equilibrium partitioning method

Exposure Route: Soil; PNEC Limit: 0.21 mg/kg soil dw

Remark: Extrapolation method:assessment factor

8.2. Exposure controls

For the choice of personal protection equipment, refer to the risk assessment carried out by the user in compliance with the national legislation on safety in the workplace.

Eye protection:

Hermetic protective goggles (UNI EN 166).

Protection for skin:

Disposable suit.

Protection for hands:

UNI EN 374 (PF 3); NBR (nitrile rubber). PVC (polyvinyl chloride)

Respiratory protection:

Mask with filter "P", white colour

Thermal Hazards:

N.A.

Environmental exposure controls:

Do not get into drains, soil or any water body; Place the product out of the reach of children, birds, pets, farm animals and other non-target animals

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Liquid (OPPTS 830.6302 OPPTS 830.6303 OPPTS 830.6304)

Colour: white (Visual assessment) (OPPTS 830.6302 OPPTS 830.6303 OPPTS 830.6304)

Odour: stinging (OPPTS 830.6302; OPPTS 830.6303; OPPTS 830.6304)

Odour threshold: Not Relevant

pH: 3.700 Notes: (Cipac MT 75.3)

Kinematic viscosity: > 20,5 mm²/sec (40 °C) (OECD 114)

Melting point / freezing point: Not Relevant

Initial boiling point and boiling range: Not Relevant

Flash point: 135 °C (275 °F) (Regulation (EC) No. 440/2008, Annex, A.9)

Upper/lower flammability or explosive limits: Not Relevant

Vapour density: Not Relevant

Vapour pressure: Not Relevant

Relative density: 1.031 g/ml (OECD 109)

Solubility in water: Miscible

Solubility in oil: Not Relevant

Partition coefficient (n-octanol/water): Not Relevant

Auto-ignition temperature: Not Relevant

Decomposition temperature: Not Relevant

Flammability: Non-flammable; ; Regulation (EC) No. 440/2008, Annex, A.9

Particle characteristics:

Particle size: Not Relevant

Particle size distribution: Dv 10 (µm) = 1.10 Dv 50 (µm) = 6.02 Dv 90 (µm) = 18.3 Volume < 45 µm (%) = 96.66 Volume > 75 µm (%) = 0.26

(CIPAC MT 187 and OECD No. 110)

Specific surface area: Not Relevant
Aggregation and agglomeration state: Not Relevant
Dustiness: Not Relevant
Nanoforms: Not Relevant
VOC (Dir. 2010/75/CE): Not Relevant
VOC (volatile carbon): Not Relevant

9.2. Other information

Explosive properties: Not explosive (Manual of Tests and Criteria ST/SG/AC.10/11/Rev. 5 – Part III, Appendix 6, Section 3,)

Corrosive to metals: Corrosive to steel

(OECD 114)

Oxidizing properties: Not oxidant (Regulation (EC) No. 440/2008, Annex, A.21)

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

Under normal storage and use conditions, no hazardous reactions occur.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

aluminium

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met ATEmix - Oral: 5000 mg/kg bw ATEmix - Inhalation (Vapours): 110 mg/l
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	The product is classified: STOT RE 2(H373)
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 a) acute toxicity ATE - Oral: 500 mg/kg bw
ATE - Inhalation (Dust/mist): 3.3 mg/l
LOAEL neurotoxicity Rat = 60 mg/kg bw

LD50 Oral Rat = 500 mg/kg bw
LD50 Skin Rat > 2000 mg/kg bw
LC50 Inhalation Rat = 3.3 mg/l 4h
NOAEL neurotoxicity Rat = 20 mg/kg bw

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol

CAS: 52-51-7 a) acute toxicity LD50 Oral Rat = 307 mg/kg bw
LD50 Skin Rat > 2000 mg/kg bw
LC50 Inhalation Rat > 0.588 mg/l 4h
b) skin corrosion/irritation Eye Corrosive Eyes Rabbit Positive
Skin Irritant Skin Rabbit Positive
e) germ cell mutagenicity Mutagenesis Negative
f) carcinogenicity Carcinogenicity Negative
g) reproductive toxicity Reproductive Toxicity Negative

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Very toxic to aquatic organisms.

Very toxic to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Acute 1(H400), Aquatic Chronic 1(H410)

List of Eco-Toxicological properties of the components

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 a) Aquatic acute toxicity: LC50 Fish = 0.0028 mg/L 96 h - *Salmo gairdneri*
a) Aquatic acute toxicity: EC50 Daphnia = 0.0003 mg/L 48 h - *Daphnia magna*
a) Aquatic acute toxicity: EC50 Algae > 0.1 mg/L 96 h - *Selenastrum capricornutum*
b) Aquatic chronic toxicity: NOEC Fish > 0.00003 mg/L - 34 d *Pimephales promelas*

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol

CAS: 52-51-7 a) Aquatic acute toxicity: EC50 Algae = 0.068 mg/L 72 h - *Anabaena flos aqua*
a) Aquatic acute toxicity: EC50 Daphnia = 1.04 mg/L 48 h - *Daphnia magna*
a) Aquatic acute toxicity: LC50 Fish = 3 mg/L 96 h - *Oncorhynchus mykiss*
b) Aquatic chronic toxicity: NOEC Algae = 0.0025 mg/L 72 h - *Anabaena flos aqua*
b) Aquatic chronic toxicity: NOEC Fish = 2.61 mg/L 672h - *Oncorhynchus mykiss*
b) Aquatic chronic toxicity: NOEC Daphnia = 0.06 mg/L 504h - *Daphnia magna*

12.2. Persistence and degradability

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 Not persistent and Biodegradable Test: OECD 308; Value: 0.948
Notes: 12°C

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol

CAS: 52-51-7 Test: CO2 production; Value: 70
Notes: (OECD 301 B (mod. -Sturm- Test))
Test: OECD 314 ; Value: 63.5

12.3. Bioaccumulative potential

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 Not bioaccumulative Test: BCF - Bioconcentration factor; Value: 374
Notes: BCF_{win} (EPISUIT) 417L/Kgwwt

Not bioaccumulative Test: Kow - Partition coefficient; Value: 5.3

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol

CAS: 52-51-7

Test: BCF - Bioconcentration factor; Value: 3.16

Notes: calculated (EPIWIN)

Test: Kow - Partition coefficient; Value: 0.38

Notes: (Log Kow n-octanol/water OECD 107)

12.4. Mobility in soil

cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

CAS: 52315-07-8 Not mobile

Test: Koc; Value: 574360

Notes: QSAR from 80653to

574360 mL/g

Not mobile

Test: DT50; Value: 17.2

Notes: 12°C

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration $\geq 0.1\%$

12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7 Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Dispose of unused product and packaging as hazardous waste.

Notes (Irish Regulation):

In case of rodenticides: At the end of the treatment, dispose of uneaten bait and the packaging in accordance with EPA requirements for the disposal of hazardous waste. Use of gloves is recommended.

Professional and Trained Professional users: dispose of dead rodents in accordance with local requirements, using one of the following methods of disposal (in order of preference): via an on-site or on-farm small carcass incinerator; with the site's or farm's domestic waste; in the site's or farm's normal non-hazardous waste; or by burial on-site, but away from sensitive areas.

Rodents can be disease carriers. Do not touch dead rodents with bare hands, use gloves or use tools such as tongs when disposing them.

SECTION 14: Transport information

14.1. UN number or ID number

1760

14.2. UN proper shipping name

ADR-Shipping Name: CORROSIVE LIQUID, N.O.S. (cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate)

IATA-Shipping Name: CORROSIVE LIQUID, N.O.S. (cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate)

IMDG-Shipping Name: CORROSIVE LIQUID, N.O.S. (cypermethrin cis/trans +/-40/60; (RS)-alfa-cyano-3-phenoxybenzyl (1RS,3RS; 1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate)

14.3. Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-A, S-B

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 8

ADR - Hazard identification number: 80

ADR-Special Provisions: 274

ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA):

IATA-Passenger Aircraft: 852

IATA-Cargo Aircraft: 856

IATA-Label: 8

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisions: A3 A803

Sea (IMDG):

IMDG-Stowage and handling: Category A SW2

IMDG-Segregation: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 223 274

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EU) n. 2020/878

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 75

Regulation (EU) n. 528/2012

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
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Product belongs to category: E1	100	200
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Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

Class 3: extremely hazardous.

SVHC Substances:

No SVHC substances present in concentration $\geq$ 0.1%

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs (nervous system) through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.16/1	Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
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STOT RE 2, H373	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method
Met. Corr. 1, H290	On basis of test data

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level
 DNEL: Derived No Effect Level.
 DPD: Dangerous Preparations Directive
 DSD: Dangerous Substances Directive
 EC50: Half Maximal Effective Concentration
 ECHA: European Chemicals Agency
 EINECS: European Inventory of Existing Commercial Chemical Substances.
 ES: Exposure Scenario
 GefStoffVO: Ordinance on Hazardous Substances, Germany.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association.
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 IC50: half maximal inhibitory concentration
 ICAO: International Civil Aviation Organization.
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
 IMDG: International Maritime Code for Dangerous Goods.
 INCI: International Nomenclature of Cosmetic Ingredients.
 IRCCS: Scientific Institute for Research, Hospitalization and Health Care
 KAFH: KAFH
 KSt: Explosion coefficient.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 LDLo: Leathal Dose Low
 N.A.: Not Applicable
 N/A: Not Applicable
 N/D: Not defined/ Not available
 NA: Not available
 NIOSH: National Institute for Occupational Safety and Health
 NOAEL: No Observed Adverse Effect Level
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, Bioaccumulative and Toxic
 PGK: Packaging Instruction
 PNEC: Predicted No Effect Concentration.
 PSG: Passengers
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
 STEL: Short Term Exposure limit.
 STOT: Specific Target Organ Toxicity.
 TLV: Threshold Limiting Value.
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
 vPvB: Very Persistent, Very Bioaccumulative.
 WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- Safety Data Sheet
- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information