

OXALIC ACID DIHYDRATE SOLID

Code : 14719

Responsible for distribution:

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- * Chemical description : Oxalic acid , Dicarboxylic acid , dihydrate .
- Type of product : Pure product .
- * Reach registration number : 01-2119534576-33

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

- * Identified use(s) : See table on the front page of the annex.
- * Use(s) advised against : This product is not recommended for any industrial, professional or consumer use other than identified in table on the front page of the annex.

1.3. Details of the supplier of the safety data sheet

Company identification : See heading of Material Safety Data Sheet.

1.4. Emergency telephone number

Emergency phone number : See heading of Material Safety Data Sheet.

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

- * Harmful (Xn; R21/22)
- Irritant (Xi; R41)



Classification according to Regulation (EC) No 1272/2008

- * Acute toxicity, oral - Category 4 - Warning (Acute Tox. 4, oral; H302)
- Acute toxicity, dermal - Category 4 - Warning (Acute Tox. 4, dermal; H312)
- Serious eye damage - Category 1 - Danger (Eye Dam. 1; H318)

2.2. Label elements

Label in accordance with Regulation (EC) No 1272/2008

- Dangerous ingredient(s) : Oxalic acid dihydrate
- * • Hazard pictogram(s)



- * • Signal word : Danger
- * • Hazard statements : H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H318 - Causes serious eye damage.
- * • Precautionary statements
- * - Prevention : P264 - Wash thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection.

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2. Hazards identification (continued)

- * - Response : P301+P312 - IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell. P302+P352 - IF ON SKIN : Wash with plenty of soap and water. P305+P351+P338 - IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- * - Disposal considerations : P501 - Dispose of this material and its container to hazardous or special waste collection point.

2.3. Other hazards

- * Physical/chemical hazards : The substance decomposes by heating or burning in formation of toxic and corrosive vapours.
- * Hazards for the health : Evaporates practically not at 20°C; will be as a powder quickly irritate a dangerous concentration in the air.
- * Hazards for the environment : Product causes a strong drop of the pH-value of water and soil. This product is no substance or contains no PBT or vPvB (in accordance with Annex XIII).
- * Hazards for the safety : May cause fire and explosion with many reactions.

3. Composition/information on ingredients

3.1. Substances

Name component(s)	Weight %	CAS nr	EINECS nr	Index nr	Reach nr	CLASSIFICATION
* Oxalic acid dihydrate	: > 99.5 %	6153-56-6	205-634-3	607-006-00-8	01-2119534576-33	Xn; R21/22 Xi; R41 Acute Tox. 4 (oral); H302 Acute Tox. 4 (skin); H312 Eye Dam. 1; H318

* The full text of the R-phrases and (EU)H-statements is in section 16.

4. First aid measures

4.1. Description of first aid measures

- * General : CALL A PHYSICIAN IN ALL CIRCUMSTANCES. Never give anything by mouth to an unconscious person.
- First Aid Measures
- * - Inhalation : Remove victim into fresh air. Allow the affected person to rest. If not breathing, give artificial respiration. Take the patient immediately to the hospital.
- * - Skin Contact : Remove contaminated clothing. Rinse skin immediately with plenty of water. (at least 20') (shower if necessary). Consult a doctor.
- Eye Contact : Rinse immediately thoroughly and long (at least 15 min.) with plenty of water. Remove contact lenses. Consult eye doctor.
- * - Ingestion : DO NOT INDUCE VOMITING. Rinse mouth with water. Give 2 glasses of water to drink. Take the patient immediately to the hospital.

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

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* See section 11.

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

* For specialist advice doctors should contact the NVCI or the Belgian Poison center.

5. Firefighting measures**5.1. Extinguishing media**

Extinguishing Media

- * - Suitable : Extinguishing powder , Foam , Carbon dioxide (CO₂) , Water spray .
- * - Insuitable : None .

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards : Fire may liberate toxic and corrosive vapours.

5.3. Advice for firefighters

- * Special Protective Equipment for Firefighters : Use self-contained breathing apparatus and wear protective clothes when in close proximity to fire.
- Special Procedures : Apply water spray or fog to cool nearby equipment. Avoid fire-fighting water to enter environment.

6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**Personal Precautions : Evacuate all personnel immediately and ventilate area.
Avoid breathing the product and contact with eyes and skin.
Wear recommended personal protective equipment. (See section 8)**6.2. Environmental precautions**Environmental Precautions : Prevent entry of product in public water, sewers or soil.
Notify authorities if product enters sewers or public waters.**6.3. Methods and material for containment and cleaning up**

- * Methods for Cleaning Up : Collect the spillage in closable, suitable disposal containers.
Sweep the spilled product.
Residue is to be washed down with plenty of water.
Neutralise rinse liquid with base.

6.4. Reference to other sections

- * For personal protection, see section 8.
For the removal of the waste product, see section 13.

7. Handling and storage**7.1. Precautions for safe handling**

- * Handling : STRONG HYGIENE ! AVOID SPREADING OF DUST !
Avoid breathing the product and contact with eyes and skin.
Wear recommended personal protective equipment. (See section 8)
When using, do not eat, drink or smoke.
Emergency eye wash fountains and showers should be available in the immediate vicinity of any potential exposure.

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- * Storage : Keep only in the original, safely locked container in a well ventilated and dry place. All dangerous products should be placed on a drip tray or should be barreled. Keep away from : Oxidizing agents , Alkalimetals , Mercury , Furfuryl alcohol , Silver .
- * Packaging Material : Polyethylene .
- * Insuitable Packaging Material : No data available.

7.3. Specific end use(s)

- * For identified uses, see subsection 1.2 and/or exposure scenarios.

8. Exposure controls/personal protection**8.1. Control parameters**

- * Occupational Exposure Limits : Oxalic acid dihydrate : Limit value (BE) : 1 mg/m³ (2011)
Oxalic acid dihydrate : Short time value (BE) : 2 mg/m³ (2011)
Oxalic acid dihydrate : Limit value (TWA 8 h) (NL) : 1 mg/m³ (2007)
- * Biological limit values : They will be included when available.
- * DNELs : • Oxalic acid dihydrate : Worker, acute - local effects, dermal : 0,69 mg/cm²
• Oxalic acid dihydrate : Worker, long-term - systemic effects, inhalation : 4,03 mg/m³
• Oxalic acid dihydrate : Worker, long-term - systemic effects, dermal : 2,29 mg/kg bw/ day
• Oxalic acid dihydrate : Consumer, acute - local effects, dermal : 0,35 mg/cm²
• Oxalic acid dihydrate : Consumer, long-term - systemic effects, dermal : 1,14 mg/kg bw/ day
• Oxalic acid dihydrate : Consumer, long-term - systemic effects, oral : 1,14 mg/m³
- * PNECs : • Oxalic acid dihydrate : Fresh water : 0,1622 mg/l
• Oxalic acid dihydrate : Marine water : 0,01622 mg/l
• Oxalic acid dihydrate : Intermittent release : 1,622 mg/l

8.2. Exposure controls

- Engineering Measures : Ventilation .
- Personal Protection Equipment
 - Respiratory protection : Dust respirator (Filter type P2).
 - Skin protection : Suitable protective clothing .
- * - Hand protection : Suitable material for safety gloves (EN 374): Nitril rubber , Neoprene , PVC .
- Eye/Face protection : Chemical goggles .
- * Environmental exposure controls : See sections 6, 7, 12 en 13.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

- Physical State (20°C) : Crystalline solid.
- Form/Colour : Colourless to white.
- Odour : Odourless .
- * Odour threshold : No data available.
- * pH value : Strong acid .

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9. Physical and chemical properties (continued)

* Melting/Freezing point	: Not applicable.
* Boiling Point/Range (1013 hPa)	: Not applicable. (Decomposes above 160°C)
Flash point	: Not applicable.
* Fire hazard	: Not applicable.
* Evaporation rate	: Not applicable.
* Vapour pressure (50°C)	: 2,2 kPa
* Relative vapour density (air=1)	: No data available.
Relative density (water=1)	: 1,7
* Density (20°C)	: 1,65 g/cm ³
* Solubility in water	: 10,8 g/100 ml
* Log P Octanol/Water (20°C)	: -1,7
* Auto-ignition temperature	: No data available.
* Minimum ignition energy	: No data available.
* Decomposition temperature	: > 160 °C
* Viscosity	: Not applicable.
* Explosive properties	: No chemical groups associated with explosive properties .
* Oxidizing properties	: No chemical groups associated with oxidizing properties .

10. Stability and reactivity

10.1. Reactivity

* Reactivity	: Reacts violently with oxidizing agents.
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10.2. Chemical stability

Stability	: Stable at normal circumstances .
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10.3. Possibility of hazardous reactions

* Hazardous reactions	: Reacts violently with: Alkalimetals , Mercury , Furfuryl alcohol => May cause explosion and fire . Reacts with Silver => Explosive materials .
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10.4. Conditions to avoid

Conditions to avoid	: High temperatures .
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10.5. Incompatible materials

* Materials to avoid	: Oxidizing agents , Alkalimetals , Mercury , Furfuryl alcohol , Silver .
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10.6. Hazardous decomposition products

* Hazardous Decomposition Products	: Fire may liberate toxic and biting vapours. (Carbon monoxide , Formic acid)
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11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	
* - Inhalation	: Stinging to respiratory tract . Symptoms include: Sore throat , Cough , Headache , Shortness of breath , Burning feeling .
* - Skin contact	: Harmful in contact with skin. Symptoms include: Redness , Pain , Burning feeling , Burns . • Oxalic acid dihydrate : LD50 (Rabbit, dermal) : > 20000 mg/kg

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11. Toxicological information (continued)

- * - Eye contact : Stinging to eyes .
Symptoms include: Redness , Pain , Burning feeling , Bad vision , Severe burns .
- * - Ingestion : Harmful if swallowed.
Symptoms include: Cramps , Chest pain , Difficulty in breathing , Cardiac arrythmias , Reduced blood pressure , Unconsciousness .
• Oxalic acid dihydrate : LD50 (Rat, oral) : > 375 mg/kg
- * Skin corrosion/irritation : Skin contact can damage eczema.
- * Serious eye damage/irritation : Serious eye damage .
- * Aspiration hazard : Not considered hazardous.
- * Respiratory or skin sensitisation : Not sensitive .
- * Carcinogenicity : Not listed as carcinogenic .
- * Mutagenicity : Not listed as mutagenic .
- * Reproductive toxicity : Not listed for reproductive toxicity .
- * Specific target organ toxicity - single exposure : To human : Listed not for organ toxicity .
For animals : No effects known.
- * Specific target organ toxicity - repeated exposure : To human : Listed not for organ toxicity .
For animals : No effects known.

12. Ecological information

12.1. Toxicity

- * Ecotoxicity : • Oxalic acid dihydrate : EC50 (Daphnia magna, 48 h) : 162,2 mg/l
• Oxalic acid dihydrate : LC50 (Fish, 96 h) : 160 mg/l

12.2. Persistence and degradability

- * Persistence and degradability : • Oxalic acid dihydrate : Persistence and degradability : Easily biodegradable .

12.3. Bioaccumulative potential

Bioaccumulation : • Oxalic acid dihydrate : Bioaccumulation : Bioaccumulation not expected .

12.4. Mobility in soil

- * Mobility : • Oxalic acid dihydrate : Mobility : Good soluble in water .

12.5. Results of PBT and vPvB assessment

- * Evaluation : • Oxalic acid dihydrate : PBT/vPvB : No

12.6. Other adverse effects

WGK class (DE) : 1 (Weak water pollutant).

Water damaging (NL) : 11

Decontamination exertion (NL) : B

- * Photochemical ozone creation potential : No data available.
- * Ozone depletion potential : None .
- * Endocrine disrupting potential : No data available.
- * Global warming potential : No data available.

13. Disposal considerations

13.1. Waste treatment methods

Waste from residues/Unused products : The product has to be destroyed according to national or local legislation, by a company specialised in handling hazardous waste products.

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- * European list of waste products : XXXXXX - European waste product code. This code is assigned on the basis of the most current applications and can not be representative for pollutions which are arisen at the effective use of the product. The producer of the waste has to evaluate its process himself and has to grant the appropriate waste coding. See Decision 2001/118/EC.
- Removal contaminated packaging : Packing is to be used exclusively for the packing of this product. After use, empty and close the packing very carefully.

14. Transport information**14.1. UN number**

UN Number : -

14.2. UN proper shipping name

ADR Name : -

ADN Name : -

IMDG Name

14.3. Transport hazard classe(s)

Class : -

14.4. Packing group

Packaging Group : -

14.5. Environmental hazards

- * Environmentally hazard : No
- Marine pollutant : No

14.6. Special precautions for user

Danger number : -

Hazard Label(s) : -

EmS-N° : -

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- * Type ship : Not applicable.
- * Pollution category : Not applicable.

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

- * Inventories : European inventory (EINECS): Listed in inventory.
NFPA n° : 3-1-0
- * Relevant EU Rule(s) : Directive 98/24/EC of the Council of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Decision 2001/118/EC of the Commission of 16 January 2001 amending Decision 2000/532/EC as regards the list of wastes
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (Reach)

OXALIC ACID DIHYDRATE SOLID**Code : 14719****15. Regulatory information (continued)****15.2. Chemical Safety Assessment**

- * A chemical safety assessment has been carried out for the substance(s) that make up this material or for the material itself.

16. Other information

- * This safety data sheet has been drawn up in accordance with Regulation (EU) No 453/2010. This safety data sheet is exclusively made for industrial/professional use.

* Has changed compared to previous revision.

- Changes : General revision .
- * Sources of used key data : The information contained herein is based on the present state of our knowledge (Producer(s) , Chemical cards , ...).
See also on the webaddress:
<http://apps.echa.europa.eu/registered/registered-sub.aspx#search>
 - * R-phrases) : R21/22 - Harmful in contact with skin and if swallowed.
R41 - Risk of serious damage to eyes.
 - * (EU)H-statement(s) : H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H318 - Causes serious eye damage.
 - * List of abbreviations and acronyms : ADN (Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation interieur) : European agreement concerning the international carriage of dangerous goods by inland waterways
ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route) : European agreement concerning the international carriage of dangerous goods by road
CO : Carbon monoxide
DNEL (Derived No Effect Level) : an estimated safe exposure level
EmS (Emergency Schedule) : the first code refers to the relevant fire schedule and the second code refers to the relevant spillage schedule
IMDG (International Maritime Dangerous Goods code)
NFPA (National Fire Protection Association) or fire diamant
NVCI : National Poisoning Information Center
PBT : persistent, bioaccumulative and toxic
PNEC (Predicted No Effect Concentration) : concentration below which exposure to a substance is not expected to cause adverse effects
REACH : Registration, Evaluation, Authorisation and restriction of Chemicals
TWA (Time-Weighted Average) : the average exposure over a specified period
vPvB : very persistent and very bioaccumulative
WGK (Wassergefährdungsklasse) : a German classification of substances that indicate the environmental hazard for surface water

This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.

BRENNTAG denies all responsibility for loss or damage resulting from the use of these data.

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