

Oxalic acid, dihydrate

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/04/2017

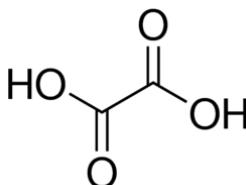
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Substance name : Oxalic acid, dihydrate
EC Index-No. : 607-006-00-8
EC-No. : 205-634-3
CAS-No. : 6153-56-6
Type of product : Pure substance, Hygroscopic substance. Preventive measures apply to the substance in dry state only
Formula : C₂H₂O₄·2H₂O
Chemical structure :



Synonyms : dicarboxylic acid C2, dihydrate / dicarboxylic acid, dihydrate / ethandionic acid, dihydrate / ethanedioic acid, dihydrate / oxiric acid, dihydrate

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemical
Textile
Cleansing product: component
Leather/fur: dyeing
Reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB GmbH
Bahnhofstrasse 10, D-97877
Wertheim - Germany
T +49 93 42 912 355 - F +49 93 42 912 357
prodsafe@isolab.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Eye Dam. 1 H318

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful in contact with skin. Harmful if swallowed. Causes serious eye damage.

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H302+H312 - Harmful if swallowed or in contact with skin
H318 - Causes serious eye damage.

Precautionary statements (CLP) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of 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
P313 - Get medical advice/ attention.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Oxalic acid, dihydrate	(CAS-No.) 6153-56-6 (EC-No.) 205-634-3 (EC Index-No.) 607-006-00-8	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash immediately with lots of water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: administration of chemical antidote. Doctor: gastric lavage is not recommended.

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

Symptoms/effects after inhalation	: AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Nausea. Vomiting.
Symptoms/effects after skin contact	: Tingling/irritation of the skin. FOLLOWING SYMPTOMS MAY APPEAR LATER: May stain the skin. Discolouration of the (finger)nails.
Symptoms/effects after eye contact	: Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue. Permanent eye damage.
Symptoms/effects after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Burns to the gastric/intestinal mucosa. Nausea. Blood in vomit. Blood in stool. Shock. FOLLOWING SYMPTOMS MAY APPEAR LATER: Decreased renal function. Change in urine output. Change in urine composition.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Decreased renal function. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Coughing. Skin rash/inflammation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Preferably: water spray. Polyvalent foam. Alcohol-resistant foam. ABC powder. Carbon dioxide.
Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Non-flammable. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD. Heating increases the fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard : DIRECT EXPLOSION HAZARD. Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark. Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray.
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit. See "Material-Handling" to select protective clothing.
Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. Dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills.
Methods for cleaning up : Stop dust cloud by humidifying. Neutralize spill with quicklime or soda ash. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Use corrosionproof equipment. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over. Avoid raising dust. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.
- Storage temperature : 20 °C
- Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. (strong) bases. water/moisture.
- Storage area : Store at ambient temperature. Store in a dry area. Store in a dark area. Keep container in a well-ventilated place. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: synthetic material. MATERIAL TO AVOID: iron.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Oxalic acid, dihydrate (6153-56-6)		
EU	Local name	Oxalic acid
EU	IOELV TWA (mg/m ³)	1 mg/m ³ (Oxalic acid; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Austria	Local name	Oxalsäure
Austria	MAK (mg/m ³)	1 mg/m ³
Austria	Remark (AT)	H
Belgium	Local name	Acide oxalique # Oxaalzuur
Belgium	Limit value (mg/m ³)	1 mg/m ³ (Acide oxalique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	2 mg/m ³ (Acide oxalique; Belgium; Short time value)
Bulgaria	Local name	Оксалова киселина
Bulgaria	OEL TWA (mg/m ³)	1 mg/m ³
Bulgaria	Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Croatia	Local name	Oksalna kiselina
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	1 mg/m ³
Croatia	Naznake (HR)	EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); Xn (Štetno)
Czech Republic	Local name	Kyselina š avelová
Czech Republic	Expoziční limity (PEL) (mg/m ³)	1 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	5 mg/m ³
Czech Republic	Remark (CZ)	D
Denmark	Local name	Oxalsyre (Ethandisyre)
Denmark	Grænseværdie (langvarig) (mg/m ³)	1 mg/m ³
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Estonia	Local name	Oblikhape (oksaalhape, etaandihape)

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Estonia	OEL TWA (mg/m ³)	1 mg/m ³
Estonia	OEL STEL (mg/m ³)	2 mg/m ³
Finland	Local name	Oksaalihappo ja sen suolat
Finland	HTP-arvo (8h) (mg/m ³)	1 mg/m ³
Finland	HTP-arvo (15 min)	3 mg/m ³
Finland	Huomautus (FI)	iho
France	Local name	Acide oxalique
France	VME (mg/m ³)	1 mg/m ³ (Acide oxalique; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	Note (FR)	Valeurs réglementaires indicatives
Germany	Local name	Oxalsäure
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1 mg/m ³ E (mg/m ³)
Germany	Remark (TRGS 900)	H,EU,13
Greece	OEL TWA (mg/m ³)	1 mg/m ³
Hungary	Local name	OXÁLSAV
Hungary	AK-érték	1 mg/m ³
Hungary	Megjegyzések (HU)	EU2
Ireland	Local name	Oxalic acid
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³
Ireland	Notes (IE)	IOELV
Italy	Local name	Acido ossalico
Italy	OEL TWA (mg/m ³)	1 mg/m ³
Latvia	Local name	Skābeņskābe (etāndiskābe)
Latvia	OEL TWA (mg/m ³)	1 mg/m ³
Lithuania	Local name	Oksalo rūgštis
Lithuania	IPRV (mg/m ³)	1 mg/m ³
Luxembourg	Local name	Acide oxalique
Luxembourg	OEL TWA (mg/m ³)	1 mg/m ³
Malta	Local name	Oxalic acid
Malta	OEL TWA (mg/m ³)	1 mg/m ³
Netherlands	Local name	Oxaalzuur
Netherlands	Grenswaarde TGG 8H (mg/m ³)	1 mg/m ³ (Oxaalzuur; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Poland	Local name	Kwas szczawiowy
Poland	NDS (mg/m ³)	1 mg/m ³
Poland	NDSch (mg/m ³)	2 mg/m ³
Portugal	Local name	Ácido oxálico
Portugal	OEL TWA (mg/m ³)	1 mg/m ³
Portugal	OEL STEL (mg/m ³)	2 mg/m ³
Romania	Local name	Acid oxalic
Romania	OEL TWA (mg/m ³)	1 mg/m ³
Slovakia	Local name	Kyselina šťaveľová (kyselina etándiová)
Slovakia	NPHV (priemerná) (mg/m ³)	1 mg/m ³
Slovenia	Local name	oksalna kislina
Slovenia	OEL TWA (mg/m ³)	1 mg/m ³
Spain	Local name	Ácido oxálico
Spain	VLA-ED (mg/m ³)	1 mg/m ³

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Spain	Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país).
Sweden	Local name	Oxalsyra
Sweden	nivågränsvärde (NVG) (mg/m ³)	1 mg/m ³
Sweden	kortidsvärde (KTV) (mg/m ³)	2 mg/m ³
Sweden	Anmärkning (SE)	V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Oxalic acid
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³ Oxalic acid; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³ Oxalic acid; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Iceland	Local name	Oxalsýra (etandísýra)
Iceland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³
Norway	Local name	Oksalsyre
Norway	Grenseverdier (AN) (mg/m ³)	1 mg/m ³
Norway	Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Switzerland	Local name	Oxalsäure
Switzerland	MAK (mg/m ³)	1 mg/m ³
Switzerland	Remark (CH)	e(mg/m ³) - Auge ^{KT HU} & OAW ^{KT HU} & Haut ^{KT HU} - OSHA
Turkey	Local name	Oksalik asit
Turkey	OEL TWA (mg/m ³)	1 mg/m ³
Australia	Local name	Oxalic acid
Australia	TWA (mg/m ³)	1 mg/m ³
Australia	STEL (mg/m ³)	2 mg/m ³
USA - ACGIH	Local name	Oxalic acid
USA - ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (Oxalic acid; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH STEL (mg/m ³)	2 mg/m ³ (Oxalic acid; USA; Short time value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT, eye, & skin irr
USA - OSHA	Local name	Oxalic acid
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. natural rubber. neoprene. nitrile rubber. viton. PVC. GIVE GOOD RESISTANCE: leather. chlorinated polyethylene. polyethylene. neoprene/natural rubber. GIVE LESS RESISTANCE: styrene-butadiene rubber. nitrile rubber/PVC. PVA

Hand protection:

Gloves

Eye protection:

Face shield. In case of dust production: protective goggles

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Skin and body protection:

Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

Respiratory protection:

Dust production: dust mask with filter type P2

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder. Grains.
Molecular mass	: 126.07 g/mol
Colour	: Colourless or white.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 1 (10 g/l, H ₂ O) 20°C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 101 °C
Freezing point	: Not applicable
Boiling point	: 149 - 160 °C (1013 hPa) (decomposition)
Flash point	: 157 °C (decomposition)
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 21 hPa (50 °C)
Relative vapour density at 20 °C	: 4.3
Relative density	: 1.6
Density	: 1653 kg/m ³
Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in glycerol. Water: > 102 g/l (20°C)
Log Pow	: -1.74 (Estimated value)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

Saturation concentration	: 0.0015 g/m ³
Other properties	: Hygroscopic. May sublime. Substance has acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

On heating: release of corrosive gases/vapours (formic acid). Upon combustion: CO and CO₂ are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (some) bases: release of heat. Decomposes on exposure to UV light: release of corrosive gases/vapours (formic acid).

10.2. Chemical stability

Unstable on exposure to light. Hygroscopic.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Dermal: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Classification concerning the environment: not applicable.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Mild water pollutant (surface water). Ground water pollutant. Harmful to fishes. Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Slightly harmful to algae (EC50 (72h): 100 - 1000 mg/l). Slightly harmful to aquatic organisms (EC50 (48h): 100 - 1000 mg/l). pH shift.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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LC50 fish 1	34.1 mg/l (LC50; 96 h)
EC50 Daphnia 1	137 mg/l (EC50; 48 h)

12.2. Persistence and degradability

Oxalic acid, dihydrate (6153-56-6)	
Persistence and degradability	Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions. Photolysis in water. Biodegradable in the soil. Photolysis in the air.

12.3. Bioaccumulative potential

Oxalic acid, dihydrate (6153-56-6)	
Log Pow	-1.74 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3261	3261	3261	3261	3261
14.2. UN proper shipping name				
CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	Corrosive solid, acidic, organic, n.o.s.	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
Transport document description				
UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., 8, III, (E)	UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., 8, III	UN 3261 Corrosive solid, acidic, organic, n.o.s., 8, III	UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., 8, III	UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., 8, III
14.3. Transport hazard class(es)				
8	8	8	8	8
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C4
Special provisions (ADR) : 274
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 (ADR) : TP33
Tank code (ADR) : SGAV, L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7
Hazard identification number (Kemler No.) : 80

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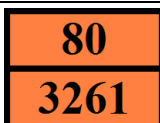
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Orange plates :



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

- Transport by sea

Transport regulations (IMDG) : Not subject
Special provisions (IMDG) : 223, 274
Packing instructions (IMDG) : P002, LP02
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : T1
Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

- Air transport

Transport regulations (IATA) : Not subject
PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y845
PCA limited quantity max net quantity (IATA) : 5kg
PCA packing instructions (IATA) : 860
PCA max net quantity (IATA) : 25kg
CAO packing instructions (IATA) : 864
CAO max net quantity (IATA) : 100kg
Special provisions (IATA) : A3
ERG code (IATA) : 8L

- Inland waterway transport

Classification code (ADN) : C4
Special provisions (ADN) : 274
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

- Rail transport

Transport regulations (RID) : Not subject
Classification code (RID) : C4
Special provisions (RID) : 274
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1
Packing instructions (RID) : P002, IBC08, LP02, R001
Special packing provisions (RID) : B3
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T1
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAV, L4BN
Transport category (RID) : 3
Special provisions for carriage – Bulk (RID) : VC1, VC2, AP7
Colis express (express parcels) (RID) : CE11
Hazard identification number (RID) : 80

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Oxalic acid, dihydrate is not on the REACH Candidate List

Oxalic acid, dihydrate is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to waters (Classification according to AwSV; ID No. 166)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

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Data sources

: 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.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.

SDS ISOLAB (EU)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product