

**SAFETY DATA SHEET**

according to Regulation (EU) No. 1907/2006/EC (REACH), as amended

Date of publication: 4.4.2012

Revision date: 12.3.2018

**OXALIC ACID DIHYDRATE****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifiers**

<b>Product name:</b>	<b>Oxalic acid dihydrate</b>
<b>Index No:</b>	607-006-00-8 (anhydrous substance)
<b>CAS No:</b>	6153-56-6
<b>EC (EINECS) No:</b>	205-634-3
<b>Synonyms:</b>	Ethanedioic acid
<b>Molecular weight:</b>	126,07
<b>Formula:</b>	$C_2H_2O_4 \cdot 2H_2O$

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

Laboratory chemicals, manufacture of substances

**1.3 Details of the supplier of the safety data sheet:**

<b>Distributor:</b>	Ing. Petr Švec - PENTA s.r.o. Radiová 1122/1 102 00 Praha 10 IN: 020 96 013
<b>Phone:</b>	+420 226 060 681, +420 226 060 697
<b>Fax:</b>	+420 267 008 288
<b>E-mail address:</b>	info@pentachemicals.eu

**1.4 Emergency telephone number:**Toxicologic information centre, Na Bojišti 1, 128 08 Praha 2;  
tel. +420 224 919 293; +420 224 915 402, e-mail: tis@vfn.cz**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

**Eye Dam. 1: H318****Acute Tox. 4: H302****Acute Tox. 4: H312****2.2 Label elements**

Labelling according regulativ (EC) No 1272/2008 [CLP]

**Hazard pictograms:****Signal word:** Danger**Index No:** 607-006-00-8 (anhydrous substance)**Hazard statements:**

H318 Causes serious eye damage.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

***Precautionary statements:***

P280 Wear protective gloves/ eye protection/ face protection.

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.

**2.3 Other hazards**

None know.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

<i>Name</i>	<i>Assay %</i>	<i>Index No</i>	<i>CAS- No</i>	<i>EC- No</i>	<i>Classification</i>
Oxalic acid dihydrate	min.99	607-006-00-8 (anhydrous substance)	6153-56-6	205-634-3	Eye Dam. 1: H318 Acute Tox. 4: H302, H312

**SECTION 4: FIRST AND MEASURES****4.1 Description of first aid measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**4.3 Indication of immediate medical attention and special treatment needed**

No information available.

**SECTION 5: FIRE-FIGHTING MEASURES****5.1 Extinguishing media**

**Suitable extinguishing media:** use water spray, alcohol-resistant foam, dry powder

**Unsuitable extinguishing media:** for this substance no limitations of extinguishing agents are given

**5.2 Special hazards arising from the substance or mixture**

Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3 Advice for firefighters**

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information:** No data available.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid inhalation dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**6.2 Environmental precautions**

Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed container for disposal.

**6.4 Reference to other sections**

For disposal see section 8 and 13.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store at +25°C

**7.3 Specific end uses:** no data available**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIONS****8.1 Control parameters**

*Components with workplace control parameters*

**8.2 Exposure controls****Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

*Eye/face protection:* safety glasses or face shield

*Skin protection:* complete suit protecting against chemical

*Hand protection:* protective gloves (nitrile rubber: thickness - 0,11mm, break through time > 480 min)

*Respiratory protection:* : respirator

**Environmental exposure controls:** do not empty into drains

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties****Appearance**

Form:	solid
Colour:	colourless (white)
Odour:	odourless
pH:	1 (126,1 g/l at 25°C)
Melting point/freezing point (°C):	104 -106
Boiling point (°C):	no data available
Flammability (solid, gas)	not flammable
Flash point (°C):	no data available
Ignition temperature (°C):	no data available
Explosive limits: upper (% V):	no data available
lower (% V):	no data available
Vapour pressure: 20 °C, hPa	< 0,01
Relative density (20 °C): g/cm <sup>3</sup>	1,65
Water solubility (20 °C): g/l	126
Partition coefficient: n-octanol/water:	- 0,81
Viscosity (20 °C): mPa.s	no data available
Explosive properties:	no data available
Oxidizing properties:	no data available

**9.2 Other safety information**

No data available

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

No data available.

**10.2 Chemical stability**

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

**10.3 Possibility of hazardous reactions**

No data available.

**10.4 Conditions to avoid**

Avoid moisture, strong heating.

**10.5 Incompatible materials**

Strong oxidizing agents, bases, alkali metals, acid chlorides.

**10.6 Hazardous decomposition products**

Other decomposition products - carbon oxides.

**SECTION 11: TOXICOLOGIC INFORMATION****11.1 Information on toxicological effects*****Acute toxicity:***LD<sub>50</sub>, oral, rat (mg.kg<sup>-1</sup>): 375 (anhydrous substance)LD<sub>50</sub>, dermal, rabbit (mg.kg<sup>-1</sup>): 20 000 (anhydrous substance)LC<sub>50</sub>, inhalation, rat (ppm): no data available***Skin corrosion/irritation:*** mild skin irritation***Serious eye damage/eye irritation:*** severe eye irritation***Respiratory or skin sensitization:*** no data available***Germ cell mutagenicity:*** Ames test negative***Carcinogenicity:*** no data available***Reproductive toxicity:*** possible risk of congenital malformation in the fetus***Specific target organ toxicity - single exposure:*** is not classified as specific target organ toxicant, repeated exposure***Specific target organ toxicity - repeated exposure:*** is not classified as specific target organ toxicant, repeated exposure***Aspiration hazard:*** no data available***Potential health effects:******Inhalation:*** may be harmful if inhaled; may cause respiratory tract irritation***Skin:*** harmful if absorbed through skin. Causes skin burns.***Eyes:*** causes serious eye irritation***Ingestion:*** harmful if swallowed**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**Toxicity to fish: LC<sub>50</sub>, 96 hod.: 160 mg/l (Leuciscus idus - anhydrous substance)Toxicity to daphnia: EC<sub>50</sub>, 48 hod.: 162,2 mg/l (Daphnia magna - anhydrous substance)Toxicity to algae: IC<sub>50</sub>, 72 hod.: 491 mg/l (Desmodesmus subspicatus)**12.2 Persistence and degradability:** biodegradability**12.3 Bioaccumulative potential:** (log Pow <1)**12.4 Mobility in soil:** no data available**12.5 Results of PBT and vPvB assessment:** no data available**12.6 Other adverse effects:** harmful to aquatic life. Do not allow to run into surface waters, wastewater, or soil

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: TRANSPORT INFORMATION****ADR/RID:**

**14.1 UN number:** 3261

**14.2 UN proper shipping name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid)

**14.3 Transport hazard class(es):** 8

**14.4 Packing group:** III

**14.5 Environmental hazards (EMS):** -

**14.6 Special precautions for user:** no data available

**IMDG:**

*Marine pollutant:* no

*EMS:* F-A, S-B

**SECTION 15: REGULATORY INFORMATION**

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

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

Classification and labeling in accordance with these regulations:

REACH: Regulation of the European Parliament and Council Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended

CLP: Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, as amended

**15.2 Chemical Safety Assessment:**

For this product a chemical safety assessment was not carried out.

**SECTION 16: OTHER INFORMATION**

*Revision No.1:* (31.3.2014) - change of contact details in section No.1

*No.2:* (27.1.2015) - reclassification in section No.2

*No.3:* (30.6.2015) - the odd. 2, 3 and 16 discharges classification **DSD** (Dangerous Substances Directive (67/548 / EEC) - as amended by Regulation 2015/830;

the odd. 1 change email addresses Poisons Information Centre;

*No.4:* (12.3.2018) - control SDS

*Full text of H-statements referred to under sections 2 and 3:*

Acute Tox. 4 (=Acute Toxicity, category 4)

Acute Tox. 4 (=Acute Toxicity, category 4)

Ey Dam. 1 (=Serious eye damage, category 1)

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PENTA company shall not be held liable for any damage resulting from handling or from contact with the above product.

