

Oxalic acid dihydrate

93722-100G

Version 1.4

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : Oxalic acid dihydrate
SDS-number : 000000021467
Type of product : Substance
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

Chemical name : Oxalic acid dihydrate

Index-No. : 607-006-00-8

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Index-No. : 607-006-00-8

REACH Registration : no data available

Number

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Number

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

Use of the : Laboratory chemicals
Substance/Mixture

Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :
For further information, : SafetyDataSheet@Honeywell.com
please contact:

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1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)
Country based Poison Control Center : see chapter 15.1

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute toxicity Category 4 - Oral
H302 Harmful if swallowed.
Acute toxicity Category 4 - Dermal
H312 Harmful in contact with skin.
Serious eye damage Category 1
H318 Causes serious eye damage.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

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

Precautionary statements : P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.

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P308 + P313

IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

Product dust may be irritating to eyes, skin and respiratory system. Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Oxalic acid dihydrate	6153-56-6 607-006-00-8 205-634-3	Acute Tox. 4; H302; Oral Acute Tox. 4; H312; Dermal Eye Dam. 1; H318	100 %	

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.

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Skin contact:

After contact with skin, wash immediately with plenty of water.

Eye contact:

Irrigate eyes for at least 15 minutes with copious quantities of water, keeping eyelids apart and away from eyeballs during irrigation. If symptoms persist, call a physician.

Ingestion:

When swallowed, allow water to be drunk. Call a physician immediately.

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

No data available

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

No data available

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray
Foam
Carbon dioxide (CO₂)
Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:

Carbon dioxide (CO₂)
Carbon monoxide
Pyrolysis products

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5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Do not allow contact with soil, surface or ground water.

6.3. Methods and materials for containment and cleaning up

Use mechanical handling equipment.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Exhaust ventilation at the object is necessary.

Advice on protection against fire and explosion:
Normal measures for preventive fire protection.

Hygiene measures:
Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

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Further information on storage conditions:

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage:

Keep away from oxidizing agents and strongly acid or alkaline materials.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
Oxalic acid dihydrate	EH40 OES TWA	1 mg/m ³		
Oxalic acid dihydrate	EH40 OES STEL	2 mg/m ³		
Oxalic acid dihydrate	EH40 WEL STEL	2 mg/m ³		
Oxalic acid dihydrate	EH40 WEL TWA	1 mg/m ³		
Oxalic acid dihydrate	EH40 WEL			Listed
Oxalic acid dihydrate	EU ELV TWA	1 mg/m ³		Indicative

TWA - Time weighted average
STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Oxalic acid dihydrate	Workers /		4,03 mg/m ³	Inhalation	

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	Long-term systemic effects				
Oxalic acid dihydrate	Workers / Long-term systemic effects		2,29mg/kg bw/d	Skin contact	
Oxalic acid dihydrate	Workers / Acute local effects		0,69 mg/cm2	Skin contact	
Oxalic acid dihydrate	Consumers / Long-term systemic effects		1,14mg/kg bw/d	Skin contact	
Oxalic acid dihydrate	Consumers / Acute local effects		0,35 mg/cm2	Skin contact	
Oxalic acid dihydrate	Consumers / Long-term systemic effects		1,14mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Oxalic acid dihydrate	Fresh water: 0,1622 mg/l	Assessment factor: 1000
Oxalic acid dihydrate	Marine water: 0,01622 mg/l	Assessment factor: 10000
Oxalic acid dihydrate	Sewage treatment plant: 1550 mg/l	

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8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Do not breathe dust.

Personal protective equipment

Respiratory protection:

In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection:

Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety goggles

Skin and body protection:

Protective suit

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Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	white
Odour	:	odourless
molecular weight	:	126,07 g/mol
Melting point/range	:	98 - 100 °C Elimination of water of crystallisation
Flammability	:	This product is not easily inflammable. Method: EU-Directive 92/69 EWG A.10
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Sublimation point	:	ca. 160 °C
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	>= 110 °C Decomposition temperature
pH	:	ca. 1,5 Concentration: 10 g/l
Auto-ignition temperature	:	> 400 °C at 1.013 hPa Method: EC A.16

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Viscosity, kinematic	:	No data available
Water solubility	:	> 100 g/l at 25 °C
Partition coefficient: n- octanol/water	:	log Pow -1,7 at: 23 °C Method: OECD Test Guideline 107
Vapour pressure	:	0,0312 Pa at 25 °C
Density	:	ca. 1,65 g/cm ³ at 20 °C
Bulk density	:	813 kg/m ³
Relative vapour density	:	No data available

9.2 Other Information

Sensitivity to light Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

>= 110 °C
Decomposition temperature

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10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Exposure to light.
Keep away from heat.

10.5. Incompatible materials

Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

LD50

Species: Rat

Sex: female

Value: 375 mg/kg

Acute dermal toxicity:

Classification based on Annex VI of regulation 1272/2008/EC.

Acute inhalation toxicity:

No data available

Skin irritation:

Species: Rabbit

Classification: non-irritant

Exposure time: 4 h

Method: OECD Test Guideline 404

Eye irritation:

Species: Rabbit

Classification: Risk of serious damage to eyes.

Method: OECD Test Guideline 405

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Respiratory or skin sensitisation:

Species: Mouse

Classification: non-sensitizing

Method: OECD Test Guideline 429

Repeated dose toxicity:

Species: Rat

LOAEL: 150 mg/kg

Method: OECD Test Guideline 407

Germ cell mutagenicity:

Test Method: Ames test

Cell type: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Method: OECD Test Guideline 471

Note: No data available

Aspiration hazard:

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

LC50

static test

Species: Carassius auratus (goldfish)

Value: 160 - 325 mg/l

Exposure time: 48 h

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Toxicity to aquatic plants:

Growth inhibition

Species: *Microcystis aeruginosa* (blue alge)

Value: 80 mg/l

Exposure time: 8 d

Toxicity to Microorganisms:

static test

Species: *Pseudomonas putida*

Value: 1.550 mg/l

Exposure time: 16 h

Toxicity to aquatic invertebrates:

EC50

Immobilization

Species: *Daphnia magna* (Water flea)

Value: 162,2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

12.2. Persistence and degradability

Biodegradability:

aerobic

Biodegradation: 89 %

Exposure time: 20 d

Result: Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

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No data available

12.7. Other adverse effects

Biochemical Oxygen Demand (BOD) : Value: ca. 160 mg/g
Chemical Oxygen Demand (COD) : Value: ca. 180 mg/g
Bioaccumulation is unlikely.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:Not dangerous goods IMDG:Not dangerous goods IATA:Not dangerous goods

14.2 UN proper shipping name

ADR/RID:Not dangerous goods
IMDG:Not dangerous goods
IATA:Not dangerous goods

14.3 Transport hazard class(es)

14.4 Packaging group

14.5 Environmental hazards

ADR/RID:no

Marine pollutant: no

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14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1\%$ (w/w).
Directive 2012/18/EC SEVESO III		Not applicable

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166

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Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)

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On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Oxalic acid dihydrate : H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.

Oxalic acid dihydrate : H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

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