



TIANJIN CHENGYI INTERNATIONAL

TRADING CO., LIMITED

Room 1309, Wufeng Building, No.11 Zhenxing Street,
National Hi-Tech Industrial Development Zone of Taiyuan, Shanxi, China.

Tel: +86 351 8281246 8281248 Fax: +86 351 8206170 Email: info@tjcyint.com

Version: 2.4/EN

Revision date: Jul.6th /2018
2019

Printing Date: February 20,

1 IDENTIFICATION OF THE SUBSTANCE/mixture AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Substance name: Oxalic acid
Synonyms: *Ethanedioic acid*
Chemical name and formula: Oxalic acid dihydrated- $C_2O_4H_2 \cdot 2H_2O$
Trade name: Oxalic Acid
CAS: 6153-56-6
EINECS: 205-634-3
Molecular Weight: 126.07 g/mol
REACH Registration number: 01-2119534576-33-0002

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

Please check the identified uses in table 1 of the Appendix of this SDS.

Uses advised against: There are no uses advised against.

1.3 Details of the supplier of the safety data sheet

Name: **Tianjin Chengyi International Trading Co., Limited.**
Address: Room 1309, Wufeng Building, No.11 Zhenxing Street,
National Hi-Tech Industrial Development Zone of Taiyuan,
Shanxi, China. Post Code 030006
Phone N°: 0086 351 8281246
Fax N°: 0086 351 8206170
E-mail of competent person responsible: wuyongping@tjcyint.com
Responsible in Europe: B&B Asesores
+34-93 241 41 18
bb@bbasesores.com

1.4 Emergency telephone number

European Emergency N°: 112
National centre for Prevention and Treatment of Intoxications N°: In case of poisoning contact national or local poison information centre



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Emergency telephone + 34 91 562 04 20 (Spain) / Others:
Available outside office hours: Yes No

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance

2.1.1 Classification according to Regulation (EC) 1272/2008

Acute toxicity cat 4 oral and dermal

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) 1272/2008

Signal word: Warning

Hazard pictogram:



Hazard statements:

H302: Harmful if swallowed.
H312: Harmful in contact with skin.

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P362: Take off contaminated clothing and wash before reuse.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P501: Dispose of contents/container to hazardous waste collection point.



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2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB substance.
No other hazards identified.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Main constituent

Name:	Oxalic acid dihydrated
CAS:	6153-56-6
EINECS:	205-634-3
Concentration:	≥99.6%

Impurities

Name:	Water:
Concentration:	<0.4%

4 FIRST AID MEASURES

4.1 Description of first aid measures

General advice

In case of loss of consciousness, never provide drink or induce vomiting.

Following inhalation

Move source of dust or move person to fresh air and rest.

Following skin contact

Carefully and gently brush the contaminated body surfaces in order to remove all traces of product for at least 15 minutes. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary seek medical advice.

Following eye contact

Rinse eyes immediately with plenty of water for at least 15 minutes and seek medical advice.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.



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4.2 Most important symptoms and effects, both acute and delayed

Prolonged or repeated skin contact may cause dermatitis. If inhaled can cause a burning sensation of nose and throat, coughing, shortness of breath, sore throat, symptoms of immediate effects.

4.3 Indication of any immediate medical attention and special treatment needed

Follow the advises given in section 4.1

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Use Water spray, powder, foam or carbon dioxide as extinguishing media. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.1.2 Unsuitable extinguishing media

Avoid open flame. Avoid contact with oxidizing materials.

5.2 Special hazards arising from the substance or mixture

Keep away from sources of ignition. In case of fire toxic fumes may form CO, CO₂.

5.3 Advice for fire fighters

The firefighting equipment must use individual breathing equipment. In case of fire keep drums cool by spraying with water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Ensure adequate ventilation.

Keep dust levels to a minimum.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).



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6.1.2 For emergency responders

Keep dust levels to a minimum.

Ensure adequate ventilation.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).

6.2 Environmental precautions

Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains. Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.

6.3 Methods and material for containment and cleaning up

Collect up dry and deposit in waste containers for later disposal according to regulations. Wipe off with water. (Extra personal protection: P2 filter respirator for harmful particles).

6.4 Reference to other sections

For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13 and the annex of this safety data sheet.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Wear protective equipment (refer to section 8 of this safety data sheet). Do not wear contact lenses when handling this product. Keep dust levels to a minimum. Minimize dust generation. Enclose dust sources, use exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

The substance should be stored under dry conditions. Recipients tightly closed.. Room temperature. Separated from strong bases, oxidizing materials, food and feed.

7.3 Specific end use(s)

Please check the identified uses in table 1 of the Appendix of this SDS.

For more information please see the relevant exposure scenario, available via your supplier/given in the Appendix.



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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

OEL (TWA): 1 mg/m³ (ACGIH 1990-1991).

OEL (como STEL): 2 mg/m³ (ACGIH 1990-1991).

DNEL for workers:

Systemic effects - long term: DNEL (derived not effect level) dermal: 0.882 mg / kg bw / day

Systemic effects - long term: DNEL (derived not effect level) inhalation: 3.11 mg / m³

DNEL for the general population:

Systemic effects - long term: DNEL (derived not effect level) Dermal: 0.315 mg / kg bw / day

Systemic effects - long term: DNEL (derived not effect level) Oral: 0.315 mg / kg bw / day

Systemic effects - long term: DNEL (derived not effect level) Inhalation: 0.466 mg / m³

PNEC water (freshwater): 0.16 mg / L

PNEC water (sea water): 0.016 mg / L

PNEC STP : 1550 mg / L

8.2 Exposure controls

To control potential exposures, generation of dust should be avoided. Further, appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate.

Please check the relevant exposure scenario, given in the Appendix/available via your supplier.

8.2.1 Appropriate engineering controls

If user operations generate dust, use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne dust levels below recommended exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment

8.2.2.1 Eye/face protection

Do not wear contact lenses. Tight fitting goggles with side shields, or wide vision full goggles.



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8.2.2.2 Skin protection

Dermal exposure should be minimized to the extent technically feasible. Wear suitable gloves (nitrile, neoprene, natural rubber, polyvinyl), standard work clothes, long pants, long sleeves, coveralls, closing with accessories and shoes openings resistant to corrosive chemicals and prevent penetration of dust.

8.2.2.3 Respiratory protection

Local ventilation to keep levels below established threshold values is recommended. A suitable particle filter mask is recommended, depending on the expected exposure levels - please check the relevant exposure scenario, given in the Appendix/available via your supplier.

8.2.2.4 Thermal hazards

The substance does not represent a thermal hazard, thus special consideration is not required.

8.2.3 Environmental exposure controls

Avoid releasing to the environment.

Contain the spillage. Any large spillage into watercourses must be alerted to the regulatory authority responsible for environmental protection or other regulatory body.

For detailed explanations of the risk management measures that adequately control exposure of the environment to the substance please check the relevant exposure scenario, available via your supplier.

For further detailed information, please check the Appendix of this SDS.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	uncoloured crystals or white powder
Odour:	odourless
Odour threshold:	not applicable
pH:	~0,7(50g/l)
Melting point:	not applicable (sublimes at > 160 °C)
Boiling point:	not applicable (sublimes at > 160 °C)
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	non flammable (study result, EU A.10 method)
Explosive limits:	non explosive (void of any chemical structures commonly associated with explosive properties)
Vapour pressure:	0.0312 Pa at 25°C



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Vapour density:	not applicable
Relative density:	0.813 (study result, EU A.3 method)
Solubility in water:	108 g/L at 25°C (study results)
Partition coefficient:	- 1.7 at 23°C (study result, OECD Guideline 107)
Auto ignition temperature:	no relative self-ignition temperature below 400 °C (study result, EU A.16 method)
Decomposition temperature:	> 160 °C
Viscosity:	not applicable
Oxidising properties:	no oxidising properties

9.2 Other information

Not available

10 STABILITY AND REACTIVITY

10.1 Reactivity

On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide. The solution in water is a medium strong acid.

10.2 Chemical stability

Under normal conditions of use and storage, oxalic acid is stable.

10.3 Possibility of hazardous reactions

Reacts violently with strong oxidants causing fire and explosion hazard. Reacts with some silver compounds to form explosive silver oxalate. Attacks some forms of plastic.

10.4 Conditions to avoid

Minimise exposure to air and moisture to avoid degradation.

10.5 Incompatible materials

Alkaline solutions. Ammonia. Halogenates. Oxidizing agents. Metals. Water. / Heat.

10.6 Hazardous decomposition products

Formic acid. Carbon dioxide. Carbon monoxide.



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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Oxalic acid is classified as harmful by oral and dermal route and it entails a risk of serious damage to the eye.

11.2 Toxicity endpoints and outcome of the effects assessment

Absorption: The primary health effect of oxalic acid is local irritation due to a pH shift. Therefore, absorption is not a relevant parameter for the effects assessment.

Acute toxicity: Oxalic acid is Oral and Dermal Acutely toxic cat. 4.

Oral: LD50 > 375 mg/kg bw (according to the method of Smyth, rat)

Dermal: LD50 > 20000 mg/kg bw (Pesticide Action Network, North America, rabbit)

Inhalation: no data available

Classification for acute toxicity is category 4 for oral and dermal route.

Irritation / corrosion

Skin irritation: Oxalic acid is not irritating to skin (OECD 404, rabbit).

Eye irritation: Oxalic acid is irritating to eyes, Category 1 (OECD 405, rabbit)

Sensitisation: Oxalic acid is not a skin sensitiser (OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)).

Repeated dose toxicity

No adverse effects observed via the oral route. NOAEL of 63 mg/kg bw/day (OECD 408)

Toxicity of Oxalic acid via the dermal route is not considered as relevant in view of the anticipated insignificant absorption through skin.

Toxicity of Oxalic acid via inhalation is not considered as relevant.

Therefore, classification of Oxalic acid for toxicity upon prolonged exposure is not required.

Mutagenicity

In vitro mammalian cell gene mutation test (OECD 476): No adverse effects observed

Carcinogenicity

Oxalic acid is not considered as carcinogenic.

Human epidemiological data support lack of any carcinogenic potential of oxalic acid.



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Classification for carcinogenicity is not warranted.

Developmental toxicity/teratogenicity

Prenatal Developmental Toxicity Study (OECD 414): No adverse effects observed

Toxicity for reproduction

Oxalic acid is not toxic to reproduction (experimental result, mouse, OECD 416)

Human epidemiological data support lack of any potential for reproductive toxicity of oxalic acid.

Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Acute/Prolonged toxicity to fish

LC50 (96h) for freshwater fish: 160 mg/l (Deutsche Einheitsverfahren zur Wasser, Abwasser und Schlamm-Untersuchung)

12.1.2 Acute/Prolonged toxicity to aquatic invertebrates

EC50 (48h) for freshwater invertebrates: 162.2mg/l (OECD 202, Daphnia)

12.1.3 Acute/Prolonged toxicity to aquatic plants

Toxicity threshold (8 days) for freshwater algae: 80.0 mg/l

12.1.4 Chronic toxicity to aquatic organisms

The long-term aquatic toxicity study on aquatic invertebrates shall be considered if the substance is poorly water soluble and oxalic acid is soluble in water. Also oxalic acid presents a low toxicity for the short term test.

12.1.5 Toxicity to soil dwelling organisms

The oxalic acid is not supposed to be directly applied to soil and an indirect exposure to soil via sewage sludge transfer is unlikely since the substance is readily biodegradable. As oxalic acid is considered as "readily biodegradable", it can be assumed that it will be biodegraded within the



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STP process and as a consequence a transfer to the soil compartment is not expected. Therefore, no tests on terrestrial organisms are provided.

12.1.6 Toxicity to terrestrial plants

EC50 (72 h) for terrestrial plants: 8 mM

12.1.7 General effect

Oxalic acid has a low logKow and is readily biodegradable. The substance is not be classified as hazardous for the environment.

12.2 Persistence and degradability

Oxalic acid is readily biodegradable, meeting the 10-d window. The biodegradation in seawater occurs at the same rate. Also the anaerobic biodegradation occurs rapidly.

12.3 Bioaccumulative potential

Not relevant for oxalic acid because this substance is ready biodegradable and highly soluble in water, and LogKow is negative.

12.4 Mobility in soil

Transport through the medium is rate-limiting. Degradation after 30 days at 20°C is up to 73% (based on CO₂ evolution). Oxalic acid is easily biodegradable in soil.

12.5 Results of PBT and vPvB assessment

The hazard assessment of oxalic acid reveals neither a need to classify the substance as dangerous to the environment, nor is it a PBT or vPvB substance, nor are there any further indications that the substance may be hazardous to the environment.

12.6 Other adverse effects

No other adverse effects are identified



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13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of oxalic acid should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Dispose of container and unused contents in accordance with federal, state and local requirements. The used packing is only meant for packing this product. After usage, empty the packing completely.

14 TRANSPORT INFORMATION

Oxalic acid is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea)).

14.1 UN-Number

Not regulated

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard class(es)

Not regulated

14.4 Packing group

Not regulated

14.5 Environmental hazards

None

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated



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15 REGULATORY INFORMATION

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

Authorisations: Not required
Restrictions on use: None
Other EU regulations: Oxalic acid is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.
National regulations: --

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for this substance.

16 OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1 Hazard Statement

H302: Harmful if swallowed.
H312: Harmful in contact with skin.

16.2 Precautionary Statement

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P362: Take off contaminated clothing and wash before reuse.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P501: Dispose of contents/container to hazardous waste collection point.

16.3 Abbreviations

EC₅₀: median effective concentration
LC₅₀: median lethal concentration
LD₅₀: median lethal dose
LOAEL: lowest observed adverse effect level



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OEL: occupational exposure limit
PBT: persistent, bioaccumulative, toxic chemical
PNEC: predicted no-effect concentration
STEL: short-term exposure limit
TWA: time weighted average
vPvB: very persistent, very bioaccumulative chemical

16.4 Revision

This SDS has been reviewed in July 2018 and it is valid on date.

16.5 Disclaimer

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

End of the Safety Data Sheet