

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 10/30/2009

Reviewed on 10/29/2009

1 Identification of substance:**Product details:****Product name:** Oxalic acid dihydrate**Stock number:** 33262**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company
 Johnson Matthey Catalog Company, Inc.
 30 Bond Street
 Ward Hill, MA 01835-8099
 Emergency Phone: (978) 521-6300
 CHEMTREC: (800) 424-9300
 Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:**Chemical characterization:****Description: (CAS#)**

Oxalic acid dihydrate

Identification number(s):**EINECS Number:** 205-634-3**Index number:** 607-006-00-8**3 Hazards identification****Hazard description:**

Xn Harmful

Information pertaining to particular dangers for man and environment

R 21/22 Harmful in contact with skin and if swallowed.

Classification system**HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	2
FIRE	0
REACTIVITY	0

Health (acute effects) = 2

Flammability = 0

Reactivity = 0

GHS label elements**Danger**

3.2/1C - Causes severe skin burns and eye damage.

**Warning**

3.1/4 - Harmful if swallowed.

3.1/4 - Harmful in contact with skin.

Prevention:

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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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Immediately call a POISON CENTER or doctor/physician.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Specific treatment (see on this label).
 Specific measures (see on this label).
 Rinse mouth.
 Wash contaminated clothing before reuse.

Storage:
 Store locked up.

Disposal:
 Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

After inhalation
 Supply fresh air. If required, provide artificial respiration. Keep patient warm.
 Seek immediate medical advice.

After skin contact
 Immediately wash with water and soap and rinse thoroughly.
 Seek immediate medical advice.

After eye contact
 Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents
 Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards caused by the material, its products of combustion or resulting gases:
 In case of fire, the following can be released:
 Carbon monoxide and carbon dioxide

Protective equipment:
 Wear self-contained respirator.
 Wear fully protective impervious suit.

6 Accidental release measures

Person-related safety precautions:
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation

Measures for environmental protection:
 Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:
 Dispose contaminated material as waste according to item 13.

Additional information:
 See Section 7 for information on safe handling
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and storage

Handling

Information for safe handling:
 Keep container tightly sealed.
 Store in cool, dry place in tightly closed containers.
 Ensure good ventilation at the workplace.

Information about protection against explosions and fires: No special measures required.

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:
 Store away from oxidizing agents.
 Store away from strong bases.

Further information about storage conditions:
 Keep container tightly sealed.
 Store in cool, dry conditions in well sealed containers.

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8 Exposure controls and personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Oxalic acid	
	mg/m ³
ACGIH TLV	1; 2-STEL
Austria MAK	1
Belgium TWA	1; 2-STEL
Denmark TWA	1
Finland TWA	1; 3-STEL
France VME	1
Ireland TWA	1; 2-STEL
Korea TLV	1; 2-STEL
Netherlands MAC-TGG	1
Norway TWA	0.01 (Ag)
Poland TWA	1; 2-STEL
Sweden NGV	1; 2-KTV
Switzerland MAK-W	1
United Kingdom TWA	1; 0.2-STEL
USA PEL	1

Additional information: No data**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection:

Safety glasses

Tightly sealed goggles

Full face protection

Body protection: Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Crystalline
Color:	White
Odor:	Odorless

Change in condition

Melting point/Melting range:	101-105°C (214-221°F)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point: Not determined

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure: Not determined

Density at 20°C (68°F): 1.65 g/cm³

Solubility in / Miscibility with
Water at 20°C (68°F): 143 g/l

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10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Bases

Dangerous reactions Reacts with oxidizing agents**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide**11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	375 mg/kg (rat)
Dermal	LD50	20 gm/kg (rabbit)

Primary irritant effect:**on the skin:**

Irritant to skin and mucous membranes.

May cause corrosive effect.

on the eye: May cause corrosive effect.**Sensitization:** No sensitizing effects known.**Subacute to chronic toxicity:**

Oxalic acid may cause burns, nausea, severe gastroenteritis, shock and convulsions. May injure kidneys. Skin and eye contact may cause burns. Chronic effects include gastrointestinal disturbances, weight loss, weakness, nervous system complaints and respiratory system inflammation.

Additional toxicological information:

Danger through skin absorption.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

13 Disposal considerations**Product:****Recommendation** Consult state, local or national regulations to ensure proper disposal.**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.**14 Transport information****DOT regulations:****Hazard class:**

8

Identification number:

UN3261

Packing group:

III

Proper shipping name (technical name): CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid dihydrate)

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Label 8

Land transport ADR/RID (cross-border)



ADR/RID class: 8 (C4) Corrosive substances
 Danger code (Kemler): 80
 UN-Number: 3261
 Packaging group: III
 Description of goods: 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid dihydrate)

Maritime transport IMDG:



IMDG Class: 8
 UN Number: 3261
 Label: 8
 Packaging group: III
 Marine pollutant: No
 Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid dihydrate)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
 UN/ID Number: 3261
 Label: 8
 Packaging group: III
 Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid dihydrate)

UN "Model Regulation": UN3261, CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., 8, III

15 Regulations

Product related hazard informations:

Hazard symbols:

Xn Harmful

Risk phrases:

21/22 Harmful in contact with skin and if swallowed.

Safety phrases:

24/25 Avoid contact with skin and eyes.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

Information about limitation of use: For use only by technically qualified individuals.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.

Contact: Zachariah Holt

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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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