

Safety Data Sheet

according to 1907/2006/EC, Article 31

Revision: 11.08.2010

Printing date 11.08.2010

1 Identification of substance

Product details

Trade name

1-Cyano-1-cyclopropanecarboxylic acid

Stock number:

H27730

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

2 Hazards identification

Hazard designation:



C Corrosive

Information pertaining to particular dangers for man and environment

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.

GHS label elements

**Danger**

H314 - Causes severe skin burns and eye damage.

**Warning**

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H332 - Harmful if inhaled.

Prevention:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Response:

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

1-Cyano-1-cyclopropanecarboxylic acid
(CAS# 6914-79-0): 100%

4 First aid measures

General information

Instantly remove any clothing soiled by the product.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

After eye contact

Instantly wash with water and soap and rinse thoroughly.

After swallowing

Seek immediate medical advice.

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

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)
Wear self-contained breathing apparatus.
Wear full protective suit.

Protective equipment:

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

Measures for cleaning/collecting:

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

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Additional information:

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Handling

Information for safe handling:

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Storage

Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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Store in a locked cabinet or with access restricted to technical experts or their assistants.

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 critical values that require monitoring at the workplace:
Additional information:**Not required.
No data**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Use breathing protection with high concentrations.

Check protective gloves prior to each use for their proper condition.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Impervious gloves

Not determined

Safety glasses

Tightly sealed safety glasses.

Full face protection

Face protection

Protective work clothing.

Breathing equipment:**Protection of hands:****Material of gloves****Penetration time of glove material****Eye protection:****Body protection:****9 Physical and chemical properties:****General Information****Form:** Crystalline powder**Colour:** White**Smell:** Cream coloured**Smell:** Not determined**Change in condition****Melting point/Melting range:** 144-148°C**Boiling point/Boiling range:** Not determined**Sublimation temperature / start:** Not determined**Flash point:**

Not applicable

Ignition temperature:

Not determined

Decomposition temperature:

Not determined

Danger of explosion:

Product is not explosive.

Critical values for explosion:**Lower:** Not determined**Upper:** Not determined**Steam pressure:**

Not determined

Density

Not determined

Solubility in / Miscibility with**Water:** Soluble**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Hydrogen cyanide (prussic acid)

11 Toxicological information**Acute toxicity:****Primary irritant effect:****on the skin:**

Corrosive effect on skin and mucous membranes.

Irritant for skin and mucous membranes.

on the eye:

Strong corrosive effect.

Irritant effect.

Sensitization:

No sensitizing effect known.

Additional toxicological information:

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

Danger by skin resorption.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information:**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

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

13 Disposal considerations**Product:****Recommendation**

Consult state, local or national regulations for proper disposal.

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Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.

Uncleaned packagings:
Recommendation:
Recommended cleaning agent:

Disposal must be made according to official regulations.
Water, if necessary with cleaning agent.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



ADR/RID-GGVS/E Class: 8 (CT2) Corrosive substances.
Kemler Number: 86
UN-Number: 2923
Packaging group: III
Label: 8+6.1
Designation of goods: 2923 CORROSIVE SOLID, TOXIC, N.O.S. (1-Cyano-1-cyclopropanecarboxylic acid)

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 8
UN Number: 2923
Label: 8+6.1
Packaging group: III
Marine pollutant: No
Correct technical name: CORROSIVE SOLID, TOXIC, N.O.S. (1-Cyano-1-cyclopropanecarboxylic acid)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
UN/ID Number: 2923
Label: 8+6.1
Packaging group: III
Correct technical name: CORROSIVE SOLID, TOXIC, N.O.S. (1-Cyano-1-cyclopropanecarboxylic acid)

UN "Model Regulation":

UN2923, CORROSIVE SOLID, TOXIC, N.O.S., 8 (6.1), III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



C Corrosive

Risk phrases:

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
34 Causes burns.

Safety phrases:

9 Keep container in a well-ventilated place.
20 When using do not eat or drink.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use:

For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

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