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Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 09.08.2010 Revision: 09.08.2010

1 Identification of substance

Product details

Trade name 4-Cyanophenylacetic acid

Stock number:

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG

Benzstrasse 3 D-76185 Karlsruhe / Germany

Informing department: **Emergency information:**

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

2 Hazards identification

Hazard designation:

Xn Harmful

Information pertaining to particular dangers

for man and environment

GHS label elements

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R 36/37/38 Irritating to eyes, respiratory system and skin.

> Warning

H302 - Harmful if swallowed.
H312 - Harmful if inhaled.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H319 - Causes respiratory irritation.
H319 - May cause respiratory irritation.
H335 - May cause respiratory irritation.
H336 - May cause respiratory irritation.
H337 - May cause respiratory irritation.
H338 - May cause respiratory irritation.
H339 - Causes serious eye irritation.
H339 - Causes skin irritation.
H330 - Causes skin irritatio

Prevention: Response:

Storage: Disposal:

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#)

4-Cyanophenylacetic acid (CAS#?): 100%

4 First aid measures

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice. After inhalation

After skin contact

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

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

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents 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.

Protective equipment:

Wear full protective suit.

6 Accidental release measures

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

Measures for environmental protection:

Measures for cleaning/collecting:

Wear protective equipment. Neep unprotected persons away.

Ensure adequate ventilation

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

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

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

Additional information:

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:

Storage

Keep ignition sources away - Do not smoke.

Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility: Further information about storage

Store away from oxidizing agents.

conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

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

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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.

Breathing equipment: Protection of hands: Material of gloves

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 Penetration time of glove material Safety glasses Face protection Eye protection: **Body protection:** Protective work clothing.

9 Physical and chemical properties:

General Information Form: Colour: Crystalline Whitish Smell: Not determined

Change in condition Melting point/Melting range: Boiling point/Boiling range:

Not determined 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

10 Stability and reactivity

Thermal decomposition / conditions to be

Materials to be avoided:

Dangerous reactions:

No decomposition if used and stored according to specifications. Oxidizing agents No dangerous reactions known

Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (prussic acid) Dangerous products of decomposition:

11 Toxicological information

Acute toxicity:

Primary irritant effect: on the skin:

on the eye: Sensitization:

Additional toxicological information:

Irritant for skin and mucous membranes.

Irritant effect.

No sensitizing effect known.

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

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

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.

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

Uncleaned packagings: Recommendation:

Disposal must be made according to official regulations.

14 Transport information

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

6.1 (T2) Toxic substances.

ADR/RID-GGVS/E Class: Kemler Number: 60 3439 III 6.1 **UN-Number:** Packaging group:

Label 3439 NITRILES, TOXIC, SOLID, N.O.S. (4-Cyanophenylacetic acid)

Designation of goods: Limited quantities (LQ) Transport category ĽQ9

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Tunnel restriction code Maritime transport IMDG/GGVSea:

6.1 3439 6.1 III IMDG/GGVSea Class: UN Number: Label Packaging group: Marine pollutant: Correct technical name:

No NITRILES, TOXIC, SOLID, N.O.S. (4-Cyanophenylacetic acid)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: UN/ID Number: 6.1 3439 6.1 Label Packaging group: Correct technical name:

NITRILES, TOXIC, SOLID, N.O.S. (4-Cyanophenylacetic acid)

UN "Model Regulation": UN3439, NITRILES, TOXIC, SOLID, N.O.S., 6.1, III

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15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

Xn Harmful

20/21/22 Harmful by inhalation, in contact with skin and if swallowed. 36/37/38 Irritating to eyes, respiratory system and skin. Risk phrases:

Keep container in a well-ventilated place. Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36/37 Wear suitable protective clothing and gloves.

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:
Contact:
Abbreviations and acronyms:

Beginner international Mith any other product of process, is the responsibility of the diser.

Health, Safety and Environmental Department.

Zachariah Holt

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

INDG: International Maritime Code for Dangerous Goods by Rail)

INDG: International Maritime Code for Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO: 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)