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

Printing date 18.07.2010 Revision: 16.07.2010

1 Identification of substance

Product details

Trade name 4-Methoxybenzonitrile

Stock number:

A15945, L05199

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. H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H332 - Harmful if inhaled.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H319 - Causes serious eye irritation.
H335 - 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 - May cause respiratory irritation.
H330 - May cause respiratory irritation.
H331 - For example of the serious experiments of the serious experiments.
H330 - May cause respiratory irritation.
H331 - Causes skin irritation.
H331 - Causes skin irritation.
H3319 - Causes skin irritation.
H3319

Prevention: Response:

Storage: Disposal: P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) Identification number(s):

4-Methoxybenzonitrile (CAS# 874-90-8): 100%

EINECS Number: 212-871-6

4 First aid measures

General information

After inhalation

Instantly remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After skin contact

Seek immediate medical advice.

Rinse opened eye for several minutes under running water. Then consult doctor. Do not induce vomiting; instantly call for medical help. 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:

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

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

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

Measures for environmental protection: Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits. Dispose of contaminated material as waste according to item 13.

Additional information:

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.

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:

Information about storage in one common

No special requirements.

Store away from oxidizing agents.

storage facility: Further information about storage

conditions:

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

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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.
Safety glasses
Face protection

Breathing equipment: Protection of hands: Material of gloves

ace protection

Protective work clothing. **Body protection:**

9 Physical and chemical properties:

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| | General Information | | | | | |
| | Genera | ai intorm | iation | | | |
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Crystalline powder White Form: Colour: Almond-like Smell:

Eye protection:

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 57-61°C 256-257°C 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

Insoluble

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided

Materials to be avoided:

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 reactions:
Dangerous products of decomposition:

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eye: Sensitizátion: Irritant effect.

Additional toxicological information:

Irritant for skin and mucous membranes.

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: 3439 III UN-Number: Packaging group: Label

3439 NITRILES, TOXIC, SOLID, N.O.S. (4-Methoxybenzonitrile)

Designation of goods: Limited quantities (LQ) LQ9

Transport category

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Tunnel restriction code Ε

Maritime transport IMDG/GGVSea:

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

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

Air transport ICAO-TI and IATA-DGR:

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

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

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

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

Xn Harmful

Risk phrases: 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

36/37/38 Irritating to eyes, respiratory system and skin.

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

National regulations

Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals. Information about limitation of use:

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

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:

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)
IMDG: International Martimer 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: T: 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)

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