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

Printing date 26.10.2010 Revision: 26.10.2010

1 Identification of substance

**Product details** 

Trade name 4-(Dimethylamino)pyridine

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:

Information pertaining to particular dangers for man and environment

**GHS** label elements

T Toxic C Corrosive

R 24/25 Toxic in contact with skin and if swallowed. R 34 Causes burns.

Danger

H301 - Toxic if swallowed. H310 - Fatal in contact with skin.

Danger

H314 - Causes severe skin burns and eye damage.

Prevention: Response:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 IF exposed or if you feel unwell:
P310 Immediately call a POISON CENTER or doctor/physician.

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) Identification number(s): 4-(Dimethylamino)pyridine (CAS# 1122-58-3)

214-353-5 **EINECS Number:** 

4 First aid measures

After inhalation

General information

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

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

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

After eye contact After swallowing Rinse opened eye for several minutes under running water. Then consult doctor. 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) Possibly 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. Ensure adequate ventilation

Measures for environmental protection: Measures for cleaning/collecting:

Ensure adequate ventilation

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.

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

Additional information:

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

storage facility:

No special requirements.

Store away from oxidizing agents. Do not store together with acids.

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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# Trade name 4-(Dimethylamino)pyridine

Components with critical values that require monitoring at the workplace: Additional information:

**Breathing equipment:** 

Not required.

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. Store protective clothing separately. Avoid contact with the eyes and skin. Use breathing protection with high concentrations.

Safety glasses
Tightly sealed safety glasses.
Full face protection
Protective work clothing.

**Body protection:** 

Form:

Colour:

Smell:

Eye protection:

9 Physical and chemical properties:

**General Information** 

Prills White Unpleasant

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

110-113°C

162°C (50mm Hg) Not determined 124°C

Flash point: Ignition temperature: 420°C

**Decomposition temperature:** Not determined Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Upper: Steam pressure: Not determined Not determined Not determined

Density Not determined Solubility in / Miscibility with Water at 20°C: 76 g/l

pH-value (60 g/l) at 20°C:

11

10 Stability and reactivity

Thermal decomposition / conditions to be

No decomposition if used and stored according to specifications.

Materials to be avoided: **Dangerous reactions:** 

Dangerous products of decomposition:

Acids Oxidizing agents No dangerous reactions known

Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Possibly Hydrogen cyanide (HCN)

## 11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

LD50 140 mg/kg (rat) Oral LD50 90 mg/kg (rabbit) Dermal Irritation of skin severe unknown mg/4H (rabbit)

Primary irritant effect: on the skin:

Corrosive effect on skin and mucous membranes.

on the eye: Sensitization: Additional toxicological information:

Corrosive effect on skin and mucous memoranes.

Strong corrosive effect.

No sensitizing effect 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.

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:

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

Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.

Uncleaned packagings: Recommendation:

Disposal must be made according to official regulations.

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#### 14 Transport information

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



ADR/RID-GGVS/E Class: Kemler Number:

UN-Number: Packaging group: Label

Designation of goods: Limited quantities (LQ) Transport category Tunnel restriction code 6.1 (TC2) Toxic substances.

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6.1+8
2928 TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (4-(Dimethylamino)pyridine)
LQ18

D/E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: UN Number: Label Packaging group: EMS Number:

Marine pollutant: Correct technical name:

6.1 2928 6.1+8 II -A,S-B

TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (4-(Dimethylamino)pyridine)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: UN/ID Number: Label

Packaging group: Correct technical name: UN "Model Regulation":

6.1 2928 6.1+8 II

TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (4-(Dimethylamino)pyridine)

UN2928, TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S., 6.1 (8), II

## 15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:



T Toxic C Corrosive

Risk phrases: 24/25 Toxic in contact with skin and if swallowed.

Causes burns. Safety phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Take off immediately all contaminated clothing.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
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:

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

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:

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

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent