

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 14.07.2010

Revision: 14.07.2010

1 Identification of substance

Product details

Trade name

4,5-Dimethylthiazole

Stock number:

A10785, L06867

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.giftnotruf.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

Hazard designation:



Xn Harmful

Information pertaining to particular dangers for man and environment

R 10 Flammable.
R 22 Harmful if swallowed.

GHS label elements

**Warning**

H226 - Flammable liquid and vapour.

**Warning**

H302 - Harmful if swallowed.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.

Response:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Disposal:

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

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

4,5-Dimethylthiazole (CAS# 3581-91-7); 100%

Identification number(s):

EINECS Number:

222-703-3

4 First aid measures

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.
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

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

CO2, extinguishing powder or water jet. Fight larger fire with 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)
Sulphur oxides (SOx)
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

Keep away from ignition sources

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Keep away from ignition sources.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

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:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.

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.

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:

Not required.

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Additional information:	No data	(Contd. of page 1)
Personal protective equipment	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. Use breathing protection with high concentrations.	
General protective and hygienic measures		
Breathing equipment:		
Eye protection:		
Body protection:	Safety glasses Face protection Protective work clothing.	

9 Physical and chemical properties:

General Information		
Form:	Liquid	
Colour:	Yellow	
Smell:	Unpleasant Stench	
Change in condition		
Melting point/Melting range:	Not determined	
Boiling point/Boiling range:	159°C	
Sublimation temperature / start:	Not determined	
Flash point:	51°C	
Ignition temperature:	Not determined	
Decomposition temperature:	Not determined	
Critical values for explosion:		
Lower:	Not determined	
Upper:	Not determined	
Steam pressure:	Not determined	
Density at 20°C	1.07 g/cm³	

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) Sulphur oxides (SOx) Hydrogen sulphide Possibly Hydrogen cyanide (HCN)	

11 Toxicological information

Acute toxicity:		
LD/LC50 values that are relevant for classification:		
Oral LD50	960 mg/kg (rat)	
Primary irritant effect:		
on the skin:	Irritant for skin and mucous membranes.	
on the eye:	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. 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)		
		
ADR/RID-GGVS/E Class:	3 (F1) Flammable liquids.	
Kemler Number:	30	
UN-Number:	1993	
Packaging group:	III	
Label	3	
Designation of goods:	1993 FLAMMABLE LIQUID, N.O.S. (not viscous) (4,5-Dimethylthiazole)	
Tunnel restriction code	D/E	
Maritime transport IMDG/GGVSea:		
		
IMDG/GGVSea Class:	3	

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UN Number: 1993
Label 3
Packaging group: III
Marine pollutant: No
Correct technical name: FLAMMABLE LIQUID, N.O.S. (4,5-Dimethylthiazole)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
UN/ID Number: 1993
Label 3
Packaging group: III
Correct technical name: FLAMMABLE LIQUID, N.O.S. (4,5-Dimethylthiazole)

UN "Model Regulation":
 UN1993, FLAMMABLE LIQUID, N.O.S., 3, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xn Harmful

Risk phrases:
 10 Flammable.
 22 Harmful if swallowed.

Safety phrases:
 16 Keep away from sources of ignition - No smoking.
 36 Wear suitable protective clothing.

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
 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

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