

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 23.08.2010

Revision: 23.08.2010

1 Identification of substance

Product details

Trade name

2-(Dimethylamino)ethyl methacrylate

Stock number:

L13507

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:



Xn Harmful

Information pertaining to particular dangers for man and environment

R 21/22 Harmful in contact with skin and if swallowed.
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.

GHS label elements

**Warning**H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.

Prevention:

Response:

P280 Wear protective gloves/clothing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

2-(Dimethylamino)ethyl methacrylate (CAS# 2867-47-2)

Identification number(s):

EINECS Number:

220-688-8

Index number:

607-132-00-3

Additional information:

Stabilized with 4-Methoxyphenol (CAS# 150-76-5)

4 First aid measures

After inhalation

Supply fresh air and call for doctor for safety reasons.
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 fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents

Water with a full water jet.

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

Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Possibly Hydrogen cyanide (HCN)
Can be released in case of fire:
Danger of containers bursting upon heating.
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.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.

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.
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:

Refrigerate

Information about storage in one common storage facility:

Store away from oxidizing agents.
Do not store together with acids.
Store in the dark.
Protect from heat.

Further information about storage conditions:

Store under dry inert gas.
Keep container tightly sealed.
Protect from the effects of light.
Refrigerate

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(Contd. on page 2)

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(Contd. of page 1)

8 Exposure controls and personal protection

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| 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. |
| Additional information: | No data |
| Personal protective equipment | The usual precautionary measures should be adhered to in handling the chemicals. |
| General protective and hygienic measures | 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. |
| Breathing equipment: | Use breathing protection with high concentrations. |
| Protection of hands: | Check protective gloves prior to each use for their proper condition. |
| Material of gloves | 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. |
| Penetration time of glove material | Impervious gloves |
| Eye protection: | Not determined |
| Body protection: | Safety glasses Face protection Protective work clothing. |

9 Physical and chemical properties:

| | |
|--|---------------------------|
| General Information | |
| Form: | Liquid |
| Colour: | Colourless |
| Smell: | Amine-like |
| Change in condition | |
| Melting point/Melting range: | -30°C |
| Boiling point/Boiling range: | 186-188°C |
| Sublimation temperature / start: | Not determined |
| Flash point: | 70°C |
| Ignition temperature: | 255°C |
| Decomposition temperature: | Not determined |
| Danger of explosion: | Product is not explosive. |
| Critical values for explosion: | |
| Lower: | 1.2 Vol % |
| Upper: | Not determined |
| Steam pressure at 20°C: | 0.58 hPa |
| Density at 20°C | 0.932 g/cm³ |
| Solubility in / Miscibility with Water at 25°C: | 106 g/l |
| pH-value (500 g/l) at 20°C: | 8 |
| Viscosity: | |
| dynamic at 20°C: | 1.3 mPas |

10 Stability and reactivity

| | |
|--|---|
| Thermal decomposition / conditions to be avoided: | No decomposition if used and stored according to specifications. Danger of containers bursting upon heating. |
| Stable until: | Depletion of inhibitor. |
| Materials to be avoided: | Oxidizing agents Ultraviolet radiation Free radical initiators Acids |
| Dangerous reactions: | Danger of polymerisation Spontaneous polymerisation can be caused in unstabilised product e.g. by ambient heat |
| Dangerous products of decomposition: | Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Possibly Hydrogen cyanide (HCN) |
| Additional information: | Unless inhibited, the product can polymerize resulting in a temperature and pressure increase that may rupture the container. |

11 Toxicological information

| | | |
|---|--|-------------------------------------|
| Acute toxicity: | | |
| LD/LC50 values that are relevant for classification: | | |
| Oral | LD50 | 1751 mg/kg (rat) (RTECS) |
| Dermal | LD50 | >2000 mg/kg (rabbit) (external SDS) |
| Inhalative | LC50/4H | 620 mg/m3/4H (rat) (RTECS) |
| Irritation of skin | severe | unknown mg (rabbit) (external SDS) |
| Irritation of eyes | severe | unknown mg (rabbit) (external SDS) |
| Primary irritant effect: on the skin: | Irritant for skin and mucous membranes. May cause corrosive effect. | |
| on the eye: | Strong irritant with the danger of severe eye injury. | |
| Sensitization: | Sensitization possible by skin contact. | |
| 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. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. | |
| Sensitisation | May cause sensitisation by skin contact. | |

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(Contd. on page 3)

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(Contd. of page 2)

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:
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: 6.1 (T1) Toxic substances.
Kemler Number: 69
UN-Number: 2522
Packaging group: II
Label: 6.1
Designation of goods: 2522 2-DIMETHYLAMINOETHYL METHACRYLATE
Limited quantities (LQ) LQ17
Transport category 2
Tunnel restriction code D/E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 6.1
UN Number: 2522
Label: 6.1
Packaging group: II
EMS Number: F-A, S-A
Marine pollutant: No
Correct technical name: 2-DIMETHYLAMINOETHYL METHACRYLATE

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1
UN/ID Number: 2522
Label: 6.1
Packaging group: II
Correct technical name: 2-DIMETHYLAMINOETHYL METHACRYLATE

UN "Model Regulation":

UN2522, -DIMETHYLAMINOETHYL METHACRYLATE, 6.1, II

15 Regulatory information**Designation according to EC guidelines:**

Code letter and hazard designation of product:



Xn Harmful

Risk phrases:

21/22 Harmful in contact with skin and if swallowed.
 36/38 Irritating to eyes and skin.
 43 May cause sensitisation by skin contact.

Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 28 After contact with skin, wash immediately with plenty of soap and water.

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: 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