

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 10.01.2012

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

(Trimethylsilyl)diazomethane, 2M in hexanes

Stock number:

H26744

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Identified use:

SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
 A Johnson Matthey Company
 Zeppelinstr. 7b
 76185 Karlsruhe / Germany
 Tel: +49 (0) 721 84007 280
 Fax: +49 (0) 721 84007 300
 Email: tech@alfa.com
 www.alfa.com
 Product safety Tel + +049 (0) 7275 988687-0
 Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)
 Poison Information Center Mainz
 www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

Informing department:

1.4 Emergency telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R23: Toxic by inhalation.



Xn; Harmful

R48/20-62-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Harmful: may cause lung damage if swallowed.



Xi; Irritant

R36/38: Irritating to eyes and skin.



F; Highly flammable

R11: Highly flammable.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

Preliminary information in humans suggests that trimethylsilyldiazomethane may be highly toxic, or fatal if inhaled. Symptoms may include respiratory tract inflammation and lung effects such as edema. these effects may be delayed for hours or days after first exposure.
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Other hazards that do not result in classification

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

The product is classified and labelled according to the CLP regulation.
 GHS02, GHS06, GHS08, GHS09
 Danger

Hazard-determining components of labelling:

(Trimethylsilyl)diazomethane
 ???

Hazard statements

H225 Highly flammable liquid and vapour.
 H330 Fatal if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H361 Suspected of damaging fertility or the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H304 May be fatal if swallowed and enters airways.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P320 Specific treatment is urgent (see on this label).

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P405
P501Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:**

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Dangerous components:**

18107-18-1 (Trimethylsilyl)diazomethane

 T R23; Xi R36
 Acute Tox. 2, H330; Eye Irrit. 2, H319

35,0%

Additional information

None known.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

Move out of the dangerous area and consult a physician. Show the attending physician a copy of the MSDS.

Instantly remove any clothing soiled by the product.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Symptoms may be delayed for hours or days after exposure.

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.

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

Do not induce vomiting.

After inhalation**After skin contact****After eye contact****After swallowing****4.2 Most important symptoms and effects, both acute and delayed**

Serious delayed effects may occur after inhalation exposure.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents**

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

5.2 Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Silicon oxide

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

6.2 Environmental precautions:

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

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up:

Keep away from ignition sources.

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

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

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.

Prevention of secondary hazards:**6.4 Reference to other sections****SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid inhalation of this product. Only use this product in a closed system or with adequate ventilation.

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

Information about protection against explosions and fires:

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and containers:**

Store in cool location.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Do not store together with acids.

Store away from strong bases.

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.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/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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8.1 Control parameters

Components with critical values that require monitoring at the workplace:

Hexane isomers, other than n-hexane
ppm

ACGIH TLV 500; 1000-STEL
Belgium TWA 500; 1000-STEL
Denmark TWA 300
Finland TWA 500; 625-STEL
France TWA 500
Germany TWA 200
Ireland TWA 500; 1000-STEL
Sweden TWA 200; 300-STEL
Switzerland TWA 500

n-Hexane

ppm
ACGIH TLV 50 (skin)
Austria MAK 50
Belgium TWA 50
Denmark TWA 25
Finland TWA 50; 150-STEL
France VME 50
Germany MAK 50
Hungary TWA 100; 200-STEL
Japan OEL 40 (skin)
Korea TLV 50 (skin)
Netherlands MAC-TGG 25
Norway TWA 25
Poland TWA 100; 400-STEL
Russia TWA 40; 300-STEL
Sweden NGV 25; 50-KTV
Switzerland MAK-W 50; 100-KZG-W
United Kingdom TWA 20
USA PEL 500
No data

Additional information:**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures**

Avoid inhalation of this product. Only use this product in a closed system or with adequate ventilation.

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.

Do not inhale dust / smoke / mist.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

When identified through risk assessment that air purifying respirators are appropriate use a full face respirator with a multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. When a respirator is the only means of protection, use a full face supplied air respirator. Use all respiratory protective equipment and components in accordance with manufacturer's guidelines and appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of hands:

Use self-contained respiratory protective device in emergency situations.

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.

Material of gloves

Impervious gloves

Penetration time of glove material

Not determined

Eye protection:

Safety glasses

Body protection:

Face protection

Protective work clothing.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form: Liquid
Colour: Yellow
Smell: Not determined
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined

Flash point: -23 °C
Inflammability (solid, gaseous): Not applicable.
Ignition temperature: 280 °C
Decomposition temperature: Not determined
Self-inflammability: Product is not selfigniting.
Critical values for explosion:
Lower: 1,2 Vol %
Upper: 8,3 Vol %
Steam pressure at 20 °C: 160 hPa
Density at 20 °C: 0,718 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.
Solubility in / Miscibility with
Water: Not miscible or difficult to mix
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
dynamic: Not determined.
kinematic: Not determined.

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Solvent content:
Organic solvents: 0,0 %
9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No information known.
10.2 Chemical stability Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions (Trimethylsilyl)diazomethane in alcoholic solvents under acidic or basic conditions can lead to the formation of diazomethane.
10.5 Incompatible materials: Acids
 Oxidizing agents
 Bases
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide
 Nitrogen oxides (NOx)
 Silicon oxide
 Diazomethane

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity: Fatal if inhaled.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: Causes skin irritation.
Eye irritation or corrosion: Causes serious eye irritation.
Sensitization: No data available.
Germ cell mutagenicity: No effects known.
Carcinogenicity: EPA-I: Data are inadequate for an assessment of human carcinogenic potential.
Reproductive toxicity: Suspected of damaging fertility or the unborn child.
Specific target organ system toxicity - repeated exposure: May cause damage to organs through prolonged or repeated exposure.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: May be fatal if swallowed and enters airways.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. (Trimethylsilyl)diazomethane is under review by the National Toxicology Program (NTP). Preliminary information in humans suggests that trimethylsilyldiazomethane may be highly toxic, or fatal if inhaled. Symptoms may include respiratory tract inflammation and lung effects such as edema. these effects may be delayed for hours or days after first exposure. The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
 Toxic
 Irritant



SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
Ecotoxicological effects:
Remark: Toxic for fish
Additional ecological information:
General notes: Do not allow material to be released to the environment without proper governmental permits.
 Toxic for aquatic organisms
 Water danger class 3 (Self-assessment): extremely hazardous for water.
 Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into soil.
 Also poisonous for fish and plankton in water bodies.
 Toxic to aquatic life.
 May cause long lasting harmful effects to aquatic life.
 Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
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.

SECTION 14: Transport information

UN-Number
ADR, IMDG, IATA UN1992
14.2 UN proper shipping name
ADR 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. ((Trimethylsilyl)diazomethane)
IMDG FLAMMABLE LIQUID, TOXIC, N.O.S. ((Trimethylsilyl)diazomethane), MARINE POLLUTANT
IATA FLAMMABLE LIQUID, TOXIC, N.O.S. ((Trimethylsilyl)diazomethane)
14.3 Transport hazard class(es)
ADR
 
Class 3 (FT1) Flammable liquids.

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Label
IMDG

3+6.1

Class
Label
IATA3 Flammable liquids.
3+6.1Class
Label3 Flammable liquids.
3+6.1Packing group
ADR, IMDG, IATA

I

14.5 Environmental hazards:
Marine pollutant:

Symbol (fish and tree)

14.6 Special precautions for user
Kemler Number:
EMS Number:Warning: Flammable liquids.
336
F-E,S-D14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC
Code

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ):
Limited quantities (LQ)
Transport category
Tunnel restriction codeE0
0
1
C/E

UN "Model Regulation":

UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S. ((Trimethylsilyl)diazomethane),
3 (6.1), I**SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Australian Inventory of Chemical Substances

None of the ingredients is listed.

Standard for the Uniform Scheduling of Drugs and Poisons

None of the ingredients is listed.

National regulations

Information about limitation of use:

For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.
Employment restrictions concerning women of child-bearing age must be observed.

Classification according to VbF:

A I

Water hazard class:

Water danger class 3 (Self-assessment): extremely hazardous for water.

Other regulations, limitations and prohibitive regulations

ELINCS (European List of Notified Chemical Substances)

None of the ingredients is listed.

Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

REACH - Pre-registered substances

All ingredients are listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 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.

Relevant phrases

H319 Causes serious eye irritation.
H330 Fatal if inhaled.R23 Toxic by inhalation.
R36 Irritating to eyes.

Department issuing data specification sheet:

Health, Safety and Environmental Department.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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