

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 20.08.2010

Revision: 20.08.2010

1 Identification of substance**Product details****Trade name****Methyltriethoxysilane****Stock number:**

L04059, 43640

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:**

Xi Irritant

Information pertaining to particular dangers for man and environmentR 10 Flammable.
R 37 Irritating to respiratory system.**GHS label elements****Warning**

H226 - Flammable liquid and vapour.

**Warning**H335 - May cause respiratory irritation.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.**Prevention:****3 Composition/information on ingredients****Chemical characterization:****Designation: (CAS#)**

Methyltriethoxysilane (CAS# 2031-67-6)

Identification number(s):**EINECS Number:**

217-983-9

4 First aid measures**General information**Instantly remove any clothing soiled by the product.
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 swallowingRinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice.**5 Fire fighting measures****Suitable extinguishing agents**

CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

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
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
Keep away from ignition sources**Measures for environmental protection:****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).
Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
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:**Handle under dry protective gas.
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 water.

Further information about storage conditions:Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.

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

Breathing equipment:
Eye protection:

Body protection:

9 Physical and chemical properties:**General Information**

Form: Liquid
Colour: Colourless
Smell: Mild

Change in condition

Melting point/Melting range: <-50°C
Boiling point/Boiling range: 141-143°C
Sublimation temperature / start: Not determined

Flash point: 23°C

Ignition temperature: 220°C

Decomposition temperature: Not determined

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure at 20°C: 13.3 hPa

Density at 20°C 0.897 g/cm³

Solubility in / Miscibility with Water: Hydrolyzes

Viscosity:
dynamic at 20°C: 0.6 mPas

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Acids
 Oxidizing agents
 Water/moisture

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	8570 µL/kg (rat)
Dermal	LD50	13300 µg/kg (rabbit)
Irritation of skin	mild	500 mg/24H (rabbit)
Irritation of eyes	mild	100 mg (rabbit)

Primary irritant effect:

Causes mild irritant effect.

on the skin:

Causes mild irritant effect.

on the eye:

No sensitizing effect known.

Sensitization:

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.

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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) (Methyltriethoxysilane)
Tunnel restriction code	D/E

Maritime transport IMDG/GGVSea:

	
IMDG/GGVSea Class:	3
UN Number:	1993
Label	3
Packaging group:	III
Marine pollutant:	No
Correct technical name:	FLAMMABLE LIQUID, N.O.S. (Methyltriethoxysilane)

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. (Methyltriethoxysilane)

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:



Xi Irritant

Risk phrases: 10 Flammable.
37 Irritating to respiratory system.

Safety phrases: 16 Keep away from sources of ignition - No smoking.
23 Do not breathe fumes.

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