


Hexamethyldisiloxane		Pricing >
Linear Formula	C ₆ H ₁₈ OSi ₂	
Pubchem CID	24764	
MDL Number	MFCD00008265	
EC No.	203-492-7	
IUPAC Name	trimethyl(trimethylsilyloxy)silane	
Beilstein/Reaxys No.	1736258	
SMILES	C[Si](C)(C)O[Si](C)(C)C	
Inchl Identifier	InChI=1S/C6H18OSi2/c1-8(2,3)7-9(4,5)6/h1-6H3	
Inchl Key	UQEAIHBTYFGYIE-UHFFFAOYSA-N	
Signal Word	Danger	
Hazard Statements	H225	
Hazard Codes	N/A	
Precautionary Statements	P210-P280-P240-P241-P303+P361+P353-P501	
Flash Point	-2 °C	
Risk Codes	N/A	
Safety Statements	N/A	
RTECS Number	JM9237000	
Transport Information	UN1993 3/ PG II	
GHS Pictograms	GHS02 Flame 	

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SAFETY DATA SHEET

Date Accessed: 05/04/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #107-46-0

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)
GHS02 Flame
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Hazards not otherwise classified
No information known.
Label elements
GHS label elements
The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)
Hazard pictograms



GHS02
Signal word
Danger
Hazard statements
H225 Highly flammable liquid and vapor.
Precautionary statements
P210
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280
Wear protective gloves / eye protection / face protection.
P240
Ground/bond container and receiving equipment.
P241
Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501
Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS classification
B2 - Flammable liquid

Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
Health (acute effects) = 1
Flammability = 3
Physical Hazard = 1
Other hazards
Results of PBT and vPvB assessment
PBT:
Not applicable.
vPvB:
Not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Substances
CAS# Description:
107-46-0 Hexamethyldisiloxane
Identification number(s):
EC number: 203-492-7

SECTION 4. FIRST AID MEASURES

Description of first aid measures
After inhalation
Supply fresh air. If required, provide artificial
respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse
thoroughly.
Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running
water. Then consult a doctor.
After swallowing
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and
delayed
No further relevant information available.
Indication of any immediate medical attention and
special treatment needed
No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents

Carbon dioxide, extinguishing powder or water spray.
Fight larger fires with water spray or alcohol resistant foam.
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
Silicon oxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Environmental precautions:
Do not allow product to reach sewage system or any water course.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Prevention of secondary hazards:
Keep away from ignition sources.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
Protective Action Criteria for Chemicals
PAC-1: 13 ppm
PAC-2: 140 ppm
PAC-3: 150 ppm

SECTION 7. HANDLING AND STORAGE

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires:

Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles:
Store in a cool location.
Information about storage in one common storage facility:
Do not store together with acids.
Store away from strong bases.
Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
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.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information:
No data
Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Maintain an ergonomically appropriate working environment.
Breathing equipment:
Use suitable respirator when high concentrations are present.
Recommended filter device for short term use:
Use a respirator with multi-purpose combination (US)

or type ABEK (EN 14387) as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Material of gloves

Nitrile rubber, NBR

Penetration time of glove material (in minutes)

480

Glove thickness:

0.11 mm

Eye protection:

Safety glasses with side shields / NIOSH (US) or EN 166(EU)

Body protection:

Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid

Odor: Not determined

Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -67 °C (-89 °F)

Boiling point/Boiling range: 100-101 °C (212-214 °F)

Sublimation temperature / start: Not determined

Flash point: -2 °C (28 °F)

Flammability (solid, gaseous)

Not determined.

Ignition temperature: 340 °C (644 °F)

Decomposition temperature: Not determined

Auto igniting: Not determined.

Danger of explosion: Product is not explosive.

However,

formation of explosive air/vapor mixtures is possible.

Explosion limits:

Lower: 21.8 Vol %

Upper: 0.5 Vol %

Vapor pressure: Not determined
Density at 20 °C (68 °F): 0.764 g/cm³ (6.376 lbs/gal)
Relative density
Not determined.
Vapor 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.
Other information
No further relevant information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No information known.
Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions
Reacts with strong oxidizing agents
Conditions to avoid
No further relevant information available.
Incompatible materials:
Acids
Bases
Oxidizing agents
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Silicon oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.
LD/LC50 values that are relevant for classification:
Dermal LD50 16 mL/kg (rabbit)
Inhalative LC50/4H 15956 ppm/4H (rat)
Skin irritation or corrosion:

May cause irritation
Eye irritation or corrosion:
May cause irritation
Sensitization:
No sensitizing effects known.
Germ cell mutagenicity:
No effects known.
Carcinogenicity:
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity:
No effects known.
Specific target organ system toxicity - repeated exposure:
No effects known.
Specific target organ system toxicity - single exposure:
No effects known.
Aspiration hazard:
No effects known.
Subacute to chronic toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.
Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Aquatic toxicity:
No further relevant information available.
Persistence and degradability
No further relevant information available.
Bioaccumulative potential
No further relevant information available.
Mobility in soil
No further relevant information available.
Ecotoxicological effects:
Remark:
Very toxic for aquatic organisms
Additional ecological information:
General notes:
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
May cause long lasting harmful effects to aquatic life.
Avoid transfer into the environment.
Very toxic for aquatic organisms
Results of PBT and vPvB assessment
PBT:

Not applicable.
vPvB:
Not applicable.
Other adverse effects
No further relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation
Consult state, local or national regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation:
Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA
UN1993
UN proper shipping name
DOT
Flammable liquids, n.o.s. (Hexamethyldisiloxane)
ADR
1993 Flammable liquids, n.o.s., special provision
640D (Hexamethyldisiloxane)
IMDG, IATA
FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)
Transport hazard class(es)
DOT
Class
3 Flammable liquids
Label
3
ADR
Class
3 (F1) Flammable liquids
Label
3
IMDG, IATA
Class
3 Flammable liquids
Label
3
Packing group
DOT, ADR, IMDG, IATA
II
Environmental hazards:

Not applicable.
Special precautions for user
Warning: Flammable liquids
EMS Number: F-E,S-E
Stowage Category B
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
Not applicable.
Transport/Additional information:
DOT
Quantity limitations
On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L
Marine Pollutant (DOT): No
IMDG
Limited quantities (LQ)
1L
Excepted quantities (EQ)
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":
UN 1993 FLAMMABLE LIQUIDS, N.O.S., SPECIAL
PROVISION 640D(HEXAMETHYLDISILOXANE), 3, II

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental
regulations/legislation specific for the substance or
mixture
GHS label elements
The product is classified and labeled in accordance
with 29 CFR 1910 (OSHA HCS)
Hazard pictograms
GHS02
Signal word
Danger
Hazard statements
H225 Highly flammable liquid and vapor.
Precautionary statements
P210
Keep away from heat/sparks/open flames/hot
surfaces. No smoking.
P280
Wear protective gloves / eye protection / face
protection.
P240
Ground/bond container and receiving equipment.
P241
Use explosion-proof
electrical/ventilating/lighting/equipment.
P303+P361+P353 If on skin (or hair): Take off

immediately all contaminated clothing. Rinse skin with water/shower.

P501

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

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65 Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held

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