



MATERIAL SAFETY DATA SHEET SDS/MSDS

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

1.1 Product identifiers

Product name : Hexamethyl Disiloxane

CAS-No. : 107-46-0

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals
5455, Nicholson Road Science Market , Ambala Cantt.133001 Haryana(India)
+91-82952 41953
info@biofinechemical.com - www.biofinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other

P273	ignition sources. No smoking.
P391	Avoid release to the environment.
P403 + P235	Collect spillage.
P501	Store in a well-ventilated place. Keep cool.
	Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements	none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	HMDSO
Formula	:	$(\text{CH}_3)_3\text{SiOSi}(\text{CH}_3)_3$
Molecular weight	:	162.38 g/mol
CAS-No.	:	107-46-0
EC-No.	:	203-492-7

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Hexamethyldisiloxane			
CAS-No.	107-46-0	Flam. Liq. 2; Aquatic Acute 1;	<= 100 %
EC-No.	203-492-7	Aquatic Chronic 1; H225, H400, H410	
		M-Factor - Aquatic Acute: 1 -	
		Aquatic Chronic: 1	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, silicon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. hygroscopic
Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/ freezing point	Melting point/range: -59 °C - lit.
f) Initial boiling point and boiling range	101 °C - lit.
g) Flash point	0.6 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 21.8 %(V) Lower explosion limit: 0.5 %(V)
k) Vapour pressure	44 hPa at 20 °C
l) Vapour density	5.61 - (Air = 1.0)
m) Relative density	0.764 g/mL at 20 °C
n) Water solubility	0.00093 g/l at 23 °C - slightly soluble

- | | |
|---|-----------------------|
| o) Partition coefficient: n-octanol/water | log Pow: > 4 at 25 °C |
| p) Auto-ignition temperature | 340 °C at 1,013 hPa |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

Relative vapour density 5.61 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents, Oxygen

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, silicon oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 5,000 mg/kg(Hexamethyldisiloxane)

LC50 Inhalation - Rat - 4 h - 15956 ppm(Hexamethyldisiloxane)
(OECD Test Guideline 403)

LD50 Dermal - Rabbit - > 2,000 mg/kg(Hexamethyldisiloxane)
(OECD Test Guideline 402)

NOAEL Oral - Rat - 160 mg/kg(Hexamethyldisiloxane)

Skin corrosion/irritation

Skin - Rabbit(Hexamethyldisiloxane)

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit(Hexamethyldisiloxane)

Result: No eye irritation

Respiratory or skin sensitisation

No data available(Hexamethyldisiloxane)

Germ cell mutagenicity

Chromosome aberration test in vitro(Hexamethyldisiloxane)

Chinese hamster lung cells

Result: negative

OECD Test Guideline 475(Hexamethyldisiloxane)

Rat - Bone marrow

Result: negative

Carcinogenicity

No data available(Hexamethyldisiloxane)

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No toxicity to reproduction(Hexamethyldisiloxane)

Specific target organ toxicity - single exposure

No data available(Hexamethyldisiloxane)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Hexamethyldisiloxane)

Additional Information

RTECS: JM9237000

Prolonged or repeated exposure to skin causes defatting and dermatitis., Dizziness, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Hexamethyldisiloxane)

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - ca. 0.46 mg/l - 96 h(Hexamethyldisiloxane)

Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 0.22 mg/l - 95 h(Hexamethyldisiloxane) (OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d(Hexamethyldisiloxane) Result: 2 % - Not biodegradable (OECD Test Guideline 301C)

12.3 Bioaccumulative potential

No data available

Bioaccumulation Cyprinus carpio (Carp) - 70 d at 25 °C(Hexamethyldisiloxane) Bioconcentration factor (BCF): 1,100 - 2,400 (OECD Test Guideline 305C)

12.4 Mobility in soil

No data available(Hexamethyldisiloxane)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1993

IMDG: 1993

IATA: 1993

14.2 UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)

IMDG: FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)

IATA: Flammable liquid, n.o.s. (Hexamethyldisiloxane)

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.