

# 1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS MSDS

CAS-No.: 999-97-3 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
:  
CAS-No. : 999-97-3  
Product code : 04047  
Formula : C<sub>6</sub>H<sub>19</sub>NSi<sub>2</sub>  
Synonyms : HMDS, Bis-(trimethylsilyl) amine

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.  
107 Wode House Road, Jehangir Villa, Colaba  
400005 Mumbai - INDIA  
T +91 22 6663 6663 - F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com) - [www.lobachemie.com](http://www.lobachemie.com)

#### 1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H225  
Category 2  
Acute toxicity (oral), H302  
Category 4  
Acute toxicity (dermal), H311  
Category 3  
Acute toxicity (inhalation:gas) Category H331  
3  
Skin corrosion/irritation, H314  
Category 1B  
Hazardous to the aquatic H412  
environment — Chronic  
Hazard, Category 3

Full text of H statements : see section 16

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## Safety Data Sheet

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11

Xn; R20/21/22

C; R34

R52/53

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02



GHS05



GHS06

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H311+H331 - Toxic in contact with skin or if inhaled

H314 - Causes severe skin burns and eye damage.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : 1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS

CAS-No. : 999-97-3

Full text of R- and H-statements: see section 16

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### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Immediately call a POISON CENTER/doctor. Specific measures (see supplemental first aid instruction on this label). Wash with plenty of water/.... Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Causes severe skin burns and eye damage.
- Symptoms/effects after inhalation : Toxic if inhaled.
- Symptoms/effects after skin contact : Toxic in contact with skin.
- Symptoms/effects after ingestion : Harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Foam. Dry powder. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Harmful to aquatic life with long lasting effects.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers. Collect spillage.

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### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.  
Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Do not breathe fume, dust, gas, vapours, spray. Avoid contact with skin and eyes.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Comply with applicable regulations.  
Storage conditions : Keep in fireproof place. Keep container tightly closed. Store in original container.  
Incompatible materials : Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection : protective gloves  
Eye protection : Chemical goggles or face shield  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Molecular mass : 161.41 g/mol  
Colour : Clear Colorless.  
Odour : ammonia odour.  
Odour threshold : No data available  
pH : 8.5  
Relative evaporation rate (butylacetate=1) : < 1  
Melting point : -80 °C  
Freezing point : No data available

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Boiling point	: 125 °C
Flash point	: 11 °C
Auto-ignition temperature	: 380 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable Highly flammable liquid and vapour.
Vapour pressure	: 20 hPa at 20°C
Relative vapour density at 20 °C	: 4.6
Relative density	: No data available
Density	: 0.77 g/cm <sup>3</sup>
Solubility	: Water: Insoluble in water
Log Pow	: 2.62
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.8 - 16.3 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

### 10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Direct sunlight. Sparks. Heat. Overheating.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled.

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Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 8.5
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 8.5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

#### 1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS (999-97-3)

Persistence and degradability	May cause long-term adverse effects in the environment.
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### 12.3. Bioaccumulative potential

#### 1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS (999-97-3)

Log Pow	2.62
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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Additional information : Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 3286  
UN-No. (IMDG) : 3286  
UN-No. (IATA) : 3286  
UN-No. (ADN) : 3286  
UN-No. (RID) : 3286

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Proper Shipping Name (IATA) : Flammable liquid, toxic, corrosive, n.o.s.  
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Proper Shipping Name (RID) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Transport document description (ADR) : UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II, (D/E)  
Transport document description (IMDG) : UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II  
Transport document description (IATA) : UN 3286 Flammable liquid, toxic, corrosive, n.o.s., 3 (6.1+8), II  
Transport document description (ADN) : UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II  
Transport document description (RID) : UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR) : 3 (6.1, 8)  
Danger labels (ADR) : 3, 6.1, 8



##### IMDG

Transport hazard class(es) (IMDG) : 3 (6.1, 8)  
Danger labels (IMDG) : 3, 6.1, 8



##### IATA

Transport hazard class(es) (IATA) : 3 (6.1, 8)  
Hazard labels (IATA) : 3, 6.1, 8



##### ADN

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Transport hazard class(es) (ADN) : 3 (6.1, 8)  
Danger labels (ADN) : 3, 6.1, 8



### RID

Transport hazard class(es) (RID) : 3 (6.1, 8)  
Danger labels (RID) : 3, 6.1, 8



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II  
Packing group (ADN) : II  
Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : FTC  
Special provisions (ADR) : 274  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T11  
Portable tank and bulk container special provisions (ADR) : TP2, TP27  
Tank code (ADR) : L4BH  
Tank special provisions (ADR) : TU15  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28  
Special provisions for carriage - Operation (ADR) : S2, S22  
Hazard identification number (Kemler No.) : 368



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Orange plates

: **368**  
**3286**

Tunnel restriction code (ADR) : D/E

EAC code : •3WE

APP code : A(fl)

### - Transport by sea

Special provisions (IMDG) : 274

Packing instructions (IMDG) : P001

IBC packing instructions (IMDG) : IBC99

Tank instructions (IMDG) : T11

Tank special provisions (IMDG) : TP2, TP13, TP27

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-C

Stowage category (IMDG) : B

Stowage and handling (IMDG) : SW2

Segregation (IMDG) : SG5, SG8

Properties and observations (IMDG) : Flammable, toxic, corrosive liquid. Toxic if swallowed, by skin contact or by inhalation. Causes burns to skin, eyes and mucous membranes.

MFAG-No : 131

### - Air transport

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y340

PCA limited quantity max net quantity (IATA) : 0.5L

PCA packing instructions (IATA) : 352

PCA max net quantity (IATA) : 1L

CAO packing instructions (IATA) : 363

CAO max net quantity (IATA) : 5L

ERG code (IATA) : 3CP

### - Inland waterway transport

Classification code (ADN) : FTC

Special provisions (ADN) : 274, 802

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E2

Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, EX, TOX, A

Ventilation (ADN) : VE01, VE02

Number of blue cones/lights (ADN) : 2

### - Rail transport

Classification code (RID) : FTC

Special provisions (RID) : 274

Limited quantities (RID) : 1L

Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02

Mixed packing provisions (RID) : MP19

Portable tank and bulk container instructions (RID) : T11

Portable tank and bulk container special provisions (RID) : TP2, TP27

Tank codes for RID tanks (RID) : L4BH

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Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 368

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS is not on the REACH Candidate List

1,1,1,3,3,3-HEXAMETHYL DISILAZANE FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV	: Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 7824)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: The substance is not listed

##### Denmark

Class for fire hazard	: Class I-1
Store unit	: 1 liter
Classification remarks	: F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

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### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Flam. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H412	Harmful to aquatic life with long lasting effects.
R11	Highly flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R34	Causes burns
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
C	Corrosive
F	Highly flammable
Xn	Harmful

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*