

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form	: Substance
Trade name	: TRIMETHYLSILYL CYANIDE FOR SYNTHESIS
EC no	: 231-657-3
CAS No	: 7677-24-9
Product code	: 0354D

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacturing of substances

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 - 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, Category 2	H225
Acute toxicity (dermal), Category 1	H310
Acute toxicity (inhal.), Category 2	H330
Acute toxicity (oral), Category 1	H300

Full text of classification categories and H statements : see section 16

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

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

F; R11

T+; R26/27/28

R29

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) :



GHS06

GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P284 - [In case of inadequate ventilation] wear respiratory protection
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER
P260 - Do not breathe vapours, dust, fume, gas

EUH phrases : EUH029 - Contact with water liberates toxic gas

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

CAS No : 7677-24-9

EC no : 231-657-3

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

3.2. Mixture

Not applicable

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Immediately call a POISON CENTER or doctor/physician. Gently wash with plenty of soap and 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. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after skin contact : Fatal in contact with skin.
- Symptoms/injuries after ingestion : Fatal 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 : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : Do not use extinguishing media containing water.

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 enter fire area without proper protective equipment, including respiratory protection.

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 naked lights. 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.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Collect spillage.

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.

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

Precautions for safe handling	: Avoid contact with skin and eyes. Use only non-sparking tools. Do not get in eyes, on skin, or on clothing. Keep away from sources of ignition - No smoking. Do not breathe vapours.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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.
Storage conditions	: Keep in fireproof place. Keep container tightly closed.
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 safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 8 - 11 °C (Lit)
Freezing point	: No data available
Boiling point	: 114 - 117 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.793 g/cm ³
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Highly reactive material. Contact with water liberates toxic gas.

10.4. Conditions to avoid

Open flame. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Dermal: Fatal in contact with skin. Inhalation: Fatal if inhaled. Oral: Fatal if swallowed.

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Fatal if swallowed. Fatal in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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 ...

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

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : 3384

UN-No. (IMDG) : 3384

UN-No.(IATA) : 3384

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

UN-No.(ADN) : 3384
UN-No. (RID) : 3384

14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
Proper Shipping Name (IMDG) : TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
Proper Shipping Name (IATA) : TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
Proper Shipping Name (ADN) : TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
Proper Shipping Name (RID) : TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S
Transport document description (ADR) : UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S., 6.1 (3), I, (C/D)
Transport document description (IMDG) : UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S., 6.1 (3), I
Transport document description (IATA) : UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S., 6.1, I
Transport document description (ADN) : UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S., 6.1 (3), I
Transport document description (RID) : UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S, 6.1 (3), I

14.3. Transport hazard class(es)

ADR

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



IMDG

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



IATA

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



ADN

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



RID

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

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



14.4. Packing group

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

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) : TF1
Special provision (ADR) : 274
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P602
Mixed packing provisions (ADR) : MP8, MP17
Portable tank and bulk container instructions (ADR) : T20
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L10CH
Tank special provisions (ADR) : TU14, TU15, TE19, TE21
Vehicle for tank carriage : FL
Transport category (ADR) : 1
Special provisions for carriage - Loading, unloading and handling (ADR) : CV1, CV13, CV28
Special provisions for carriage - Operation (ADR) : S2, S9, S14
Hazard identification number (Kemler No.) : 663
Orange plates :



Tunnel restriction code (ADR) : C/D
EAC code : •3WE
APP code : A(fl)

- Transport by sea

Special provision (IMDG) : 274
Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P602

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

Tank instructions (IMDG)	: T20
Tank special provisions (IMDG)	: TP2, TP13
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: D
Stowage and handling (IMDG)	: SW2
MFAG-No	: 131

- Air transport

PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: Forbidden
CAO max net quantity (IATA)	: Forbidden
ERG code (IATA)	: 6F

- Inland waterway transport

Classification code (ADN)	: TF1
Special provisions (ADN)	: 274, 802
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2

- Rail transport

Classification code (RID)	: TF1
Special provision (RID)	: 274
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P602
Mixed packing provisions (RID)	: MP8, MP17
Portable tank and bulk container instructions (RID)	: T20
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L10CH
Special provisions for RID tanks (RID)	: TU14, TU15, TU38, TE21, TE22
Transport category (RID)	: 1
Special provisions for carriage – Loading and unloading (RID)	: CW13, CW28, CW31
Hazard identification number (RID)	: 663

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

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS is not on the REACH Candidate List

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS is not on the REACH Annex XIV List

TRIMETHYLSILYL CYANIDE FOR SYNTHESIS

Safety Data Sheet

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 1829)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

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

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour
H300	Fatal if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
EUH029	Contact with water liberates toxic gas
R11	Highly flammable
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed
R29	Contact with water liberates toxic gas
F	Highly flammable
T+	Very toxic

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