1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : **TETRABUTYL AMMONIUM HYDROXIDE 10%IN METHANOL**

Product code : 19338

Identification of the product : TETRABUTYL AMMONIUM HYDROXIDE 10%IN METHANOL

CAS No : 2052-49-5

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

Company identification

MOLYCHEM INDIA LLP
Office: Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade, Cuffe Parade, Mumbai 400 005 (INDIA)
Tel: +91 22 4066 8111, 2205 7772 .
Email : info@molychem.net
Works: Plot No. B/9, Badlapur M.I.D.C.,
OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E),
Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

2. Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity, (Category 3)	H301
Acute toxicity (inhal.), Category 3	H331
Acute toxicity, (Category 3)	H311
Serious eye damage, (Category 1)	H318

Full text of H- and EUH-statements: 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 GHS05

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapor.
H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P280 - Wear protective clothing, eye protection, face protection, protective gloves
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

3. Composition/information on ingredients

3.1. Substances

Name : TETRABUTYL AMMONIUM HYDROXIDE 10%IN METHANOL

CAS-No : 2052-49-5

3.2. Mixtures

Not applicable

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. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin

	irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/injuries	: Causes severe skin burns and eye damage. Causes damage to organs.
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.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for firefighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Avoid breathing dust/fume/gas/mist/vapours/spray.
Emergency procedures	: Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

For further information refer to section 13.

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Do not breathe dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container. Keep container tightly closed. Store in a dry place. Protect from moisture.
Storage away from	: Direct sunlight. Overheating. Open flame. Heat. Sparks.

7.3. Specific end use(s)

No additional information available

8. Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Eye protection	: Chemical goggles or safety glasses
Hand protection	: Wear protective gloves
Skin protection	: Wear suitable protective clothing
Respiratory protection	: wear respiratory protection.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear solution.
Molecular mass	: 259.48
Colour	: Colourless to pale yellow
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate	: No data available
Melting point	: -98 °C
Freezing point	: No data available
Boiling point	: 64 °C
Flash point	: 11 °C
Auto-ignition temperature	: 464 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable
Vapour pressure	: 13 kPa (at 20°C)
Relative vapour density at 20 °C	: 1.1
Relative density	: No data available
Density	: 0.82 g/cm³
Solubility	: Water: Soluble in water
Partition coefficient n-octanol/water (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

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

No additional information available

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6 Hazardous decomposition products

No additional information available

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Irritating to eyes and skin.
Additional information	: 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
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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

13. Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.
Ecology - waste materials	: Hazardous waste due to toxicity.

14. Transport information

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

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)
Danger labels (IATA)	: 3, 6.1, 8
ADN	
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
Limited quantities (ADR	: 1L
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
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S22
Hazard identification number (Kemler No.)	: 368

Tunnel restriction code (ADR)	: D/E
EAC code	: •3WE
Transport by sea	
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMGD)	: 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
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
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
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
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE7
Hazard identification number (RID) : 368

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. Regulatory information

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

15.1.1 EU-Regulations

Contains no substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 2, hazardous to water (Classification according to AwSV, Annex 1)

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

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : 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

16. Other information

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate

BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand
COD	Chemical oxygen demand
COD	Chemical oxygen demand
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties
Full text of H- and EUH-statements	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Safety Data Sheet (SDS), EU 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.