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1. Identification of the substance/mixture and of the company/undertaking **1.1. Product identifier Trade name : DIMETHYLAMINE SOLUTION 40% FOR SYNTHESIS Product code** : 60050 **Identification of the product** : Dimethylamine Solution 40% CAS No: 124-40-3 1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only. **1.3.** Details of the supplier of the safety data sheet **Company identification : MOLYCHEM** Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. 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] Flammable liquids, H225 Category 2 Acute toxicity (oral), H302 Category 4 Skin corrosion/irritation, H314 Category 1B Full text of H statements : see section 16 Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] F: R11 Xn; R20/22 C: R34 Adverse physicochemical, human health and environmental effects No additional information available 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to displayExtra classification(s) to display **Symbol(s)** : Highly flammable Xn: Harmful

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C: Corrosive



R Phrase(**s**) : **R11:** Highly flammable.

R20/22: Harmful by inhalation and if swallowed.

R34: Cause burns.

S Phrase(s) : **S26** : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advise.

S36/37/39 : Wear suitable protective clothing and gloves & eye/face protecting.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazard pictograms



Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

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

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/doctor

2.3. Other hazards

No additional information available

3. Composition/information on ingredients

3.1. Substances : DIMETHYLAMINE SOLUTION

CAS-No. : 124-40-3

Substance name	Contents	CAS No
Dimethylamine	40%	231-791-2
Water	60%	7732-18-5
~ .		

Substance.

Contains no other components or impurities which will influence the classification of the product.

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4. First aid measures

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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. 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 : Harmful if inhaled.

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

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.

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 : Stop release.

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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

No additional information available

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 dust/fume/gas/mist/vapours/spray. Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. 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. Use explosion-proof electrical/ventilating/lighting equipment. Comply with applicable regulations. Storage conditions : Keep in fireproof place. Keep container tightly closed.

Incompatible materials : Heat sources.

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

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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state : Liquid
Molecular mass : 45.09 g/mol
pH : No data available

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Relative evaporation rate (butylacetate=1) : No data available **Melting point** : Highly alkaline **Freezing point** : No data available **Boiling point** : No data available Flash point : 16 °C Auto-ignition temperature : 401 °C **Decomposition temperature** : No data available **Flammability** (solid, gas) : Flammable Highly flammable liquid and vapour. **Vapour pressure** : 1.17 hPa at 55 °C **Relative vapour density at 20** °C : No data available **Relative density :** No data available **Density** : 0.83 - 0.93 **Solubility :** Water: Soluble in 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** : 0.028 - 0.144 vol % 9.2. Other information No additional information available **10. Stability and reactivity 10.1. Reactivity** No additional information available **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. Overheating. High temperature. **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**

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Acute toxicity : Oral: Harmful if swallowed. Skin corrosion/irritation : Causes severe skin burns and eye damage. Serious eye damage/irritation : Serious eye damage, category 1, implicit 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. **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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Additional information : Handle empty containers with care because residual vapours are flammable.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN **14.1. UN number** UN-No. (ADR) : 1160 UN-No. (IMDG) : 1160 UN-No. (IATA) : 1160



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UN-No. (ADN): 1160 UN-No. (RID): 1160 **14.2.** UN proper shipping name Proper Shipping Name (ADR) : DIMETHYLAMINE AQUEOUS SOLUTION Proper Shipping Name (IMDG) : DIMETHYLAMINE, AQUEOUS SOLUTION Proper Shipping Name (IATA) : Dimethylamine, aqueous solution Proper Shipping Name (ADN) : DIMETHYLAMINE AQUEOUS SOLUTION Proper Shipping Name (RID) : DIMETHYLAMINE AQUEOUS SOLUTION Transport document description (ADR) : UN 1160 DIMETHYLAMINE AQUEOUS SOLUTION, 3 (8), II, (D/E) Transport document description (IMDG) : UN 1160 DIMETHYLAMINE, AQUEOUS SOLUTION, 3 (8), II Transport document description (IATA): UN 1160 Dimethylamine, aqueous solution, 3 (8), II Transport document description (ADN) : UN 1160 DIMETHYLAMINE AQUEOUS SOLUTION, 3 (8), II Transport document description (RID) : UN 1160 DIMETHYLAMINE AQUEOUS SOLUTION, 3 (8), II 14.3. Transport hazard class(es) **ADR:** Transport hazard class(es) (ADR) : 3 (8) Danger labels (ADR): 3, 8 **IMDG:** Transport hazard class(es) (IMDG) : 3 (8) Danger labels (IMDG): 3, 8 **IATA** : Transport hazard class(es) (IATA) : 3 (8) Hazard labels (IATA): 3, 8 **ADN:** Transport hazard class(es) (ADN) : 3 (8) Danger labels (ADN) : 3, 8 **RID:** Transport hazard class(es) (RID) : 3 (8) Danger labels (RID): 3, 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

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14.6. Special precautions for user **Overland transport** Classification code (ADR) : FC Limited quantities (ADR) : 11 Excepted quantities (ADR) : E2 Packing instructions (ADR): P001, IBC02 Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions (ADR): T7 Portable tank and bulk container special provisions (ADR) : TP1 Tank code (ADR) : L4BH Vehicle for tank carriage : FL Transport category (ADR): 2 Special provisions for carriage – Operation (ADR) : S2, S20 Hazard identification number (Kemler No.) : 338 Orange plates : Tunnel restriction code (ADR) : D/E EAC code : •2WE APP code : A(fl)Transport by sea Limited quantities (IMDG) : 1 L Excepted quantities (IMDG) : E2 Packing instructions (IMDG) : P001 IBC packing instructions (IMDG) : IBC02 Tank instructions (IMDG): T7 Tank special provisions (IMDG) : TP1 EmS-No. (Fire) : F-E EmS-No. (Spillage) : S-C Stowage category (IMDG) : B **MFAG-No: 132** 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) : 3C **Inland waterway transport** Classification code (ADN) : FC

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Limited quantities (ADN) : 1 L Excepted quantities (ADN) : E2 Carriage permitted (ADN) : T Equipment required (ADN): PP, EP, EX, A Ventilation (ADN) : VE01 Number of blue cones/lights (ADN): 1 **Rail transport** Classification code (RID) : FC 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): T7 Portable tank and bulk container special provisions (RID) : TP1 Tank codes for RID tanks (RID) : L4BH Transport category (RID): 2 Colis express (express parcels) (RID) : CE7 Hazard identification number (RID): 338 14.7. Transport in bulk according to Annex II of MARPOL 73/78 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** No REACH Annex XVII restrictions DIMETHYLAMINE SOLUTION is not on the REACH Candidate List DIMETHYLAMINE SOLUTION is not on the REACH Annex XIV List **15.1.2.** National regulations Germany Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 250) 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance) Netherlands SZW-lijst van kankerverwekkende stoffen : The substance is not listed

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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 **15.2.** Chemical safety assessment No additional information available

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document Prepared by: MOLYCHEM (INDIA) For questions contact: MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. 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

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