

SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

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SECTION 1. Identification of the substance

Product identifiers

Product name: N,N'-DIISOPROPYLETHYLAMINE

CAS-No.: 7087-68-5

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

Identified uses: Laboratory chemicals, Manufacture of substances

Details of the supplier of the safety data sheet

Company: CHEMLYTE SOLUTIONS CO., LTD

Address: A1-3-830, XiXi Center, No. 588, Wenyi West Road, Hangzhou 310000,
Zhejiang, China

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Emergency telephone number

Emergency Phone # : +1-703-527-3887

SECTION 2. Hazards identification

GHS classification

Flammable liquids 2

Acute toxicity-oral 3

Acute toxicity- inhalation 3

Skin corrosion/irritation 1B

Serious eye damage/eye irritation 1

Specific target organ toxicity, single exposure 3

Hazardous to the aquatic environment, long-term hazard 2

GHS Pictograms



Signal words

Danger

Hazard statements

H225: Highly flammable liquid and vapour

H301:Toxic if swallowed

H331:Toxic if inhaled

H314:Causes severe skin burns and eye damage

H318:Causes serious eye damage

H335:May cause respiratory irritation

H411:Toxic to aquatic life with long lasting effects

Precautionary Statement

Prevention

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

P233:Keep container tightly closed.

P240:Ground and bond container and receiving equipment.

P241:Use explosion-proof electrical/ventilating/lighting/.../equipment.

P242:Use non-sparking tools.

P243:Take action to prevent static discharges.

P260:Do not breathe dust/fume/gas/mist/vapours/spray.

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

P264:Wash hands [and...] thoroughly after handling.

P264+P265:Wash hands [and...] thoroughly after handling. Do not touch eyes.

P270:Do not eat, drink or smoke when using this product.

P271:Use only outdoors or with adequate ventilation.

P273:Avoid release to the environment.

P280:Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Precautionary Statement

Response

P301+P316:IF SWALLOWED: Get emergency medical help immediately.

P301+P330+P331:IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P361+P354:IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.

P303+P361+P353:IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water[or shower].

P304+P340:IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P354+P338:IF IN EYES:Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P316:Get emergency medical help immediately.

P317:Get medical help.

P319:Get medical help if you feel unwell.

P321:Specific treatment (see the supplemental first aid instruction).

P330:Rinse mouth.

P363:Wash contaminated clothing before reuse

P370+P378:In case of fire, use appropriate media to extinguish.

P391:Collect spillage.

Precautionary Statement

Storage

P403+P233:Store in a well-ventilated place. Keep container tightly closed.

P403+P235:Store in a well-ventilated place. Keep cool.

P405:Store locked up.

Precautionary Statement Disposal

P501:Dispose of contents/container in according with local regulation.

Other hazards which do not result in classification

Not available.

SECTION 3. Composition/information on ingredients**Substances**

Component: N,N-Diisopropylethylamine

CAS number: 7087-68-5

EINECS number: 230-392-0

Mass(%wt): ≥99.7

Note:1. Unless a component presents a severe hazard, it does not need to be considered in the SDS if the concentration is less than 1%.

SECTION 4.First-aid measures**NOTE TO PHYSICIAN**

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

After inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Get immediate medical attention.

After skin contact

Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. If irritation persists, get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.

After eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.

After ingestion

Rinse mouth. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Loosen tight clothing such as a collar, tie, belt or waistband. Do not use mouth-to-mouth method if victim ingested the substance. Seek immediate medical attention.

Most important symptoms/effects, acute and delayed

Burning sensation, cough, wheezing, laryngitis, shortness of breath, sore throat, cramps, inflammation, bronchitis, pneumonia, pulmonary edema, the substance is very damaging to the mucosal tissue and upper respiratory tract, eyes and skin.

Toxic if swallowed. Toxic if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

SECTION 5. Fire-fighting measures**Suitable extinguishing agents**

Use alcohol-resistant foam, powder, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

Special hazards caused by the material, its products of combustion or flue gases

Highly flammable. Vapor/air mixtures are explosive. The vapor is heavier than air and may travel along the ground; distant ignition possible.

Can be released in case of fire: carbon oxides, nitrogen oxides, irritating and toxic fumes and gases.

Protective equipment for fire-fighters

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

SECTION 6. Accidental release measures

Person-related safety precautions

Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Beware of vapours accumulating to form explosive concentrations. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.

Measures for environmental protection

Prevent further leakage or spillage if safe to do so. Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting

Minor leakage: Absorb with sand or other noncombustible materials. Use clean, spark free tools to collect grazing materials. Large amount of leakage: Build embankments or dig pits for containment. Cover with foam to reduce evaporation. Spray mist can reduce evaporation, but it cannot reduce the flammability of leaked materials in limited spaces. Use explosion-proof and corrosion-resistant pumps to transfer to tank trucks or specialized collectors.

Additional information

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7. Handling and storage

Handling

Information for safe handling

Avoid contact with skin, eyes, mucous membranes and clothing. Do not breathe dust/fume/gas /mist/vapours/spray. In case of insufficient ventilation, wear suitable respiratory equipment.

Information about protection against explosions and fires

NO open flames, NO sparks and NO smoking. Closed system, ventilation, explosion-proof electrical equipment and lighting. Use only non-sparking tools. Take action to prevent static discharges. Wash hands and face thoroughly after handling.

STORAGE

Requirements to be met by storerooms and containers

Keep in a cool, dark, well-ventilated place.

Keep tightly closed until used.

Use of explosion-proof lighting, ventilation facilities.

Information about storage in one common storage facility

Separated from strong oxidizers, acids, etc.

Store under inert gas.

Store locked up.

Air-sensitive.

Further information about

Storage areas should be equipped with emergency treatment

storage conditions

equipment and suitable materials for leakage.

SECTION 8: Exposure controls/personal protection

Limit Values for Exposure

Component: N,N-Diisopropylethylamine

CAS number: 7087-68-5

ACGIH TLV-TWA: N.E.

ACGIH TLV-STEL: N.E.

NIOSH PEL-TWA: N.E.

NIOSH PEL-STEL: N.E.

Appropriate engineering controls

Install a closed system or local exhaust. Also install safety shower and eye bath.

General protective and hygienic measures

Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Splash goggles, gloves, apron and a respirator or mask.

Breathing equipment

When workers are facing high concentrations they must use appropriate certified respirators.

Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc.

Protection of hands Eye/Face protection

Wear appropriate chemical resistant gloves. Use safety glasses with side shields or safety goggles as mechanical barrier for prolonged exposure.

Body protection

Full set of anti chemical reagent overalls, flame retardant antistatic protective clothing, choose body protection according to the amount and concentration of the dangerous substance at the work place.

Note: 1. N.E. means not established.

SECTION 9: Physical and chemical properties

Physical state: Transparent liquid

Colour: Colorless

Odour: Ammonia odor

Melting point/freezing point: -46 °C

Boiling point or initial boiling point and boiling range: 127 °C

Flammability: Highly flammable

Lower and upper explosion limit/ flammability limit

Upper explosive limit: 6.3 %(V/V),

lower explosive limit: 0.7 %(V/V)

Flash point: 10.6 °C (Closed cup)

Auto-ignition temperature: No data available

Decomposition temperature: No data available

pH: No data available

Kinematic viscosity: No data available

Solubility: Insoluble in water, soluble in alcohol and xylene

Partition coefficient n-octanol/water(log value) : -1.8

Vapour pressure: 14 hPa (20 °C)

Density and/or relative density: 0.742 g/cm³ (20 °C)

Relative vapour density (air=1): No data available

Particle characteristics: Not applicable

SECTION 10: Stability and reactivity

Reactivity

Possible release of nitrosamines on contact with nitrites, nitrates, and nitrites.

May react violently with strong oxidizing agents, acids.

Chemical stability

This is a stable chemical under recommended storage conditions.

Possibility of hazardous reactions

No special reactivity has been reported.

Conditions to avoid (e.g. static discharge, shock or vibration)

Heat, flames and sparks, extreme temperatures and direct sunlight. Static discharge.

Incompatible materials

Avoid contact with strong oxidizers, acids, etc.

Hazardous decomposition products

May include carbon oxides, nitrogen oxides, irritating and toxic fumes and gases.

SECTION 11: Toxicological information

Routes of Entry: Dermal contact, eye contact, inhalation, ingestion.

Acute Toxicity

N,N-Diisopropylethylamine (CAS 7087-68-5)

LD50 (Oral, rat): 317 mg/kg

LC50 (Inhalation, rat): 2.63 mg/l (4 h)

LD50 (Dermal, rabbit): N/A

Skin corrosion/Irritation

Causes severe skin burns and eye damage.

Serious damage/irritation

Causes serious eye damage.

Respiratory or skin sensitization

Not classified

Germ cell mutagenicity

Not classified

Carcinogenicity

Not classified

Reproductive toxicity

Not classified

STOT-single exposure

May cause respiratory irritation

STOT-repeated exposure

Not classified

Aspiration hazard

Not classified

Chronic Effects

Not classified

Further Information

None

SECTION 12: Ecological information**Ecotoxicity****Aquatic Toxicity**

N,N-Diisopropylethylamine (CAS 7087-68-5)

Test & Species

96 Hr LC50 Fish: 69.7 mg/l

48 Hr EC50 Daphnia: 28.1 mg/l

72 Hr EC50 Algae: 150 mg/l

Persistence and degradability

Not readily biodegradable.

Bioaccumulative potential

Not available

Mobility in soil

Not available

Additional Information

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**WASTE DISPOSAL INSTRUCTIONS**

Contact a qualified professional waste disposal service to dispose of this material.

Dispose of in accordance with local environmental regulations or local authority requirements.

SECTION 14: Transport information**The Recommendation of Transport of Dangerous Goods(TDG)**

UN Number UN: 2733

Proper Shipping Name: AMINES, FLAMMABLE, CORROSIVE, N.O.S.(N, N-Diisopropylethylamine)

Class/Division: Class 3 Flammable Liquids

Package Group: PG II

Subsidiary risk: Class 8 Corrosive Substances

labelling pictogram



Maritime transport IMDG: Being same with TDG

Marine pollutant (Yes/No): Yes

Air transport ICAO-TI and IATA-DGR: Being same with TDG

SECTION 15: Regulatory information

European/International Regulations

OSHA: Hazardous by definition of Hazard Communication Standard(29CFR 1910.1200).

EINECS Status: The main components of this chemical are included in EINECS inventory.

EPA TSCA Status: The main components of this chemical are included in TSCA inventory.

Canadian DSL(Domestic Substances List): The main components of this chemical are included in DSL.

HMIS(Hazardous Material Identification System Ratings):

Health: 3

Flammability: 3

Physical hazard: 0

Personal protection: J(4. Severe Hazard; 3. Serious Hazard; 2. Moderate Hazard; 1. Slight Hazard; 0. Minimal Hazard) B2, D1B, D2B

WHMIS(Canadian Workplace Hazardous Material Identification System Ratings):GB 12268-2012

List of dangerous goods

This chemical is a dangerous goods on the GB 12268-2012 list of dangerous goods.

SECTION 16: Other information

Further information

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