

NANJING HBLALKYLOLAMINES CO., LTD.

NO. 55, EAST FANGSHUI ROAD, LUHE, NANJING, CHINA TEL: 025-5839006 FAX: 025-58390008

Product Name: Diisopropanolamine 85%

Date of revision: 2022/01/01

Version: 6.0

SAFETY DATA SHEET

SECTION 1 IDENTIFICATION

1.1 Product identifier

Trade name:Diisopropanolamine / DIPA
Chemical name:
1, 1'-IMINODI-2-PROPANOL

1.2 Recommended used of the chemical and restrictions on use

Identified uses: Oil and gas desulfurization.

Chemical additive. Chemical intermediate.

Restrictions on use: No data available.

1.3 Details of the manufacturer

Manufacturer name: NANJING HBLALKYLOLAMINES CO., LTD. Address: NO. 55, EAST FANGSHUI ROAD, LUHE

210047, NANJING, CHINA

Telephone: 0086-25-58390066
E-mail: market@hongbaoli.com

1.4 Emergency Phone:

0086-532-83889090(Chinese) 0086-25-58390057(English)

SECTION 2 HAZARDS IDENTIFICATION

2.1 Hazard classification

Serious eye damage/eye Irritation- Category 2

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2.2 Label elements Hazard pictogram



Signal word: Warning!

Hazards

Causes serious eye irritation

Precautionary statements

Prevention:

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

No information available

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportions (%)		
Diisopropanolamine	[110-97- 4]	85.0 min.		
Monoisopropanolamine	[78-96-6]	0.5 max.		
Tri-isopropanolamine	[122-20-3]	0.5 max.		

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Water	[7732-18- 5]	15.0 max.
Water	[7732-18- 5]	15.0 max.

SECTION 4 FIRST-AID MEASURES

4.1 Description of first aid measures

General advice:

Remove contaminated clothing and shoes. If you feel unwell, seek medical advice (show the label where possible).

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Ingestion:

Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person

Inhalation:

Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of the immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing media: Water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams are preferred if available.

Unsuitable extinguishing media: Do not use direct water stream. Will spread fire.

5.2 Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as: nitrogen oxides (NOx)

5.3 Advice for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas

Ensure adequate ventilation, especially in confined areas

Remove all sources of ignition

Avoid contact with skin, eyes and inhalation of vapors

Use personal protection recommended in Section 8

6.2 Environmental precautions

Local authorities should be advised if significant spillages cannot be contained Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system

6.3 Methods and material for containment and cleaning up

Use mechanical handling equipment.

Pick up and place in appropriate container for disposal according to local / national regulations (see Section 13)

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SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice Ensure adequate ventilation, especially in confined areas Avoid contact with skin, eyes or clothing Wash contaminated clothing before reuse Take precautionary measures against static discharges Avoid generation of dust Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product Wash thoroughly after handling Use personal protection recommended in Section 8

7.2 Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-ventilated place
Keep away from heat
Protect from sunlight
Keep locked up and out of reach of children
Keep away from food, drink and animal feeding stuffs
Store in accordance with local regulations
container material: unsuitable materials: Light metals/light metal
alloys, copper/copper alloys

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Not data available.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment:

Eye/Face protection: Wear safety glasses with side shields (or goggles)

Hand protection: Wear protective gloves . **Skin protection:** Suitable protective clothing.

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Respiratory protection: In case of insufficient ventilation, wear suitable

respiratory equipment.

Environmental exposure controls:

Do not allow into any sewer, on the ground or into any body of water

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

For DIPA 85%

Appearance: Colorless to light yellow liquid

Odor: Light ammonia odor

Odor threshold: N/A PH: N/A Melting Point/Freezing point: -9° C Boiling point: 105° C

Flash Point: 127° °C on dry base

Evaporation rate: N/A

Flammability: Not applicable to liquid

Upper explosion limits: N/A Lower explosion limits: N/A Vapor Pressure: N/A Vapor Density: N/A N/A Relative Density $(25/4^{\circ}C)$: 1.022

Solubility(ies): Soluble in water

Partition coefficient:n-octanol/water:N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A

Formula: C6H15NO2

Color: Colorless to light yellow

SECTION 10 STABILITY AND REACTIVITY

- 10.1 Reactivity No data available
- 10.2 Chemical stability Stable under recommended storage conditions .
- **10.3 Possibility of hazardous reactions** Strong exothermic reaction with acids.
- **10.4 Conditions to avoid** Heat and incompatible material.

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10.5 Incompatible materials Acids.

10.6 Hazardous decomposition products Nitrogen oxides (NOx), carbonic oxides, etc

SECTION 11 TOXICITY INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Oral: LD50 > 2000 mg/kg bw (Rat)

Inhalation: LD50: 8000 mg/kg bw (Rabbitmale)

Dermal: RD50 (calculated) (3 h): ca. 3200 mg/m³ air (mouse male)

LC0 (3 h): 2069 mg/m³ air (mouse male)

Skin corrosion/irritation:

Non-irritating to rabbit (small white russians Chbb-SPF) Slightly irritating to rabbit (Vienna White).

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: No sensitization effects.

Germ cell mutagenicity: 1,1'-iminodipropan-2-ol is not mutagenic and no hyperplasia and/or pre-neoplastic lesions were observed in the oral semichronic repeated dose toxicity study.

Carcinogenicity: 1,1'-iminodipropan-2-ol is not mutagenic and no hyperplasia and/or pre-neoplastic lesions were observed in the oral semichronic repeated dose toxicity study.

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Reproductive toxicity: Based on the available studies, there is no indication that 1,1'-iminodipropan-2-ol can cause effects onfertility or developmental toxicity.

STOT-single exposure: Insufficient data to classify.

STOT-repeated exposure: Insufficient data to classify.

Aspiration hazard: Insufficient data to classify.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

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Chemical Name	Algae/aquatic plants	Fi Crustacea			
1,1'-iminodipropan-2-ol	339:72h Scenedesmus subspicatus (new name: Desmodesmus subspicatus) mg/L EC50	1466:96h Brachydanio rerio (new name: Danio rerio) mg/L	277.7: 48 h Daphnia magna Straus mg/L EC50		
	125:72h Scenedesmus subspicatus (new name: Desmodesmus subspicatus) mg/L NOEC	LC50			
	250:72h Scenedesmus subspicatus (new name: Desmodesmus subspicatus) mg/L LOEC				
	219:72h Scenedesmus subspicatus (new name: Desmodesmus subspicatus) mg/L EC10				
	255:72h Scenedesmus subspicatus (new name: Desmodesmus subspicatus) mg/L EC20				
	74:72h Selenastrum capricornutum (new name:Pseudokirchnerella subcapitata) mg/L EC50				

12.2 Persistence and degradability 1,1'-iminodipropan-2-ol is readily biodegradable.

12.3 Bioaccumulative potential

Accumulation in organisms is not expected

12.4 Mobility in soil

No information available.

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12.5 Results of PBT and vPvB assessment

Based on the assessment, 1,1 -iminodipropan-2-ol is not a PBT / vPvB substance.

12.6 Other adverse effects

No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14 TRANSPORTATION INFORMATION

14.1 Classification for ROAD and Rail transport

Not regulated for transport

14.2 Classification for SEA transport (IMO-IMDG)

Not regulated for transport

14.3 Classification for AIR transport (IATA-IACO)

Not regulated for transport

SECTION 15 REGULATORY INFORMATION

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

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European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories								
Component	TSCA	DSL/ NDSL	EINECS /ELINC S	ENCS	IECSC	KECL	PICCS	AICS
1,1'-iminodipropan- 2-ol 110-97-4	Х	Х	X	Х	Х	Х	Х	Х

[&]quot;-" Not Listed

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance

SECTION16 OTHER INFORMATION

16.1 Revision

Date of the previous revision: 2020/06/01

Date of this revision: 2022/01/01

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16.2 Information source and reference

The information for this SDS is provided by internal reference within our company.

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[&]quot;X" Listed