



杭州海关技术中心
国家危险化学品检测重点实验室（杭州）



电话 (Tel): 0571 8352 7220

传真 (Fax): 0571 8352 7219

邮编 (Post code): 311215

地址 (Add.): 中国杭州市萧山区建设三路 398 号

正本/ORIGIN

编号: TCH25029732

No: TCH25029732

日期: 2025-10-24

Date: 2025-10-24

ZAIQ-RF(HH)-01-19

Safety Data Sheet

扫描查看在线报告



Applicant name: ZHEJIANG JIANYE CHEMICAL CO., LTD

Product name: DI-N-BUTYLAMINE

Date of issue: 2025-10-24

Edit institution: Technology Center of Hangzhou Customs District

Approver:

万旺军

- Note: 1. Unless other wise stated, this test report is only responsible for the sample(s).
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声 明

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This report shall be used in integrity. This organization will not be responsible for any misleading caused by the content of this report.

1. Identification of substance

Product Name	DI-N-BUTYLAMINE
Other Name	Dibutylamine, n-Dibutylamine
Chemical Name	Di-N-BUTYLAMINE
Recommended Use	Used for dyes, pharmaceutical intermediates, etc.
Manufacturer	ZHEJIANG JIANYE CHEMICAL CO.,LTD
Registered Address	NO.8, YANDONGGUAN ROAD, MEICHENG TOWN, JIANDE, HANGZHOU CITY, ZHEJIANG PROVINCE, P.R.CHINA (311604)
Manufacturing address	NO.1 JIANGSHAN ROAD, HI-TECH INDUSTRIAL PARK, JIANDE, HANGZHOU CITY, ZHEJIANG PROVINCE, P.R.CHINA (311604)
Phone Number	+86-571-64149273
Fax Number	+86-571-64141300
WEB or E-mail	trade@chinaorganicchem.com
Emergency Phone Number	+86-571-64144119 or call your nearest poison control centre

2. Hazards identification

GHS classification	Flammable liquids 3 Corrosive to metals 1 Acute toxicity-oral 3 Acute toxicity-dermal 3 Acute toxicity- inhalation 2 Skin corrosion/irritation 1A Serious eye damage/eye irritation 1 Specific target organ toxicity, single exposure 1 Hazardous to the aquatic environment, acute hazard 2
GHS Pictograms	
Signal words	Danger
Hazard statements	H226:Flammable liquid and vapour H290:May be corrosive to metals H301:Toxic if swallowed H311:Toxic in contact with skin H330:Fatal if inhaled H314:Causes severe skin burns and eye damage H318:Causes serious eye damage H370:Causes damage to organs H401:Toxic to aquatic life
Precautionary Statement Prevention	P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233:Keep container tightly closed. P234:Keep only in original packaging.

Precautionary Statement
Response

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.
P262:Do not get in eyes, on skin, or on clothing.
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/...
P284:In case of inadequate ventilation wear respiratory
protection.
P301+P316:IF SWALLOWED: Get emergency medical help
immediately.
P301+P330+P331:IF SWALLOWED: Rinse mouth. Do NOT
induce vomiting.
P302+P352:IF ON SKIN: Wash with plenty of water/...
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.
P308+P316:IF exposed or concerned: Get emergency medical
help immediately.
P316:Get emergency medical help immediately.
P317:Get medical help.
P320:Specific treatment is urgent(see the supplemental first
aid instruction)
P321:Specific treatment (see the supplemental first aid
instruction).
P330:Rinse mouth.
P361+P364:Take off immediately all contaminated clothing
and wash it before reuse.

Precautionary Statement Storage	P363:Wash contaminated clothing before reuse P370+P378:In case of fire, use appropriate media to extinguish. P390:Absorb spillage to prevent material damage. 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. P406:Store in corrosive resistant/...container with a resistant inner liner.
Precautionary Statement Disposal	P501:Dispose of contents/container in according with local regulation.
Other hazards which do not result in classification	Not available.

3. Composition/information on ingredients

✓ **Substances**

□ **Mixtures**

Component Information

Component	CAS number	EINECS number	Mass(%wt)
DI-N-BUTYLAMINE	111-92-2	203-921-8	≥99.5

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%.

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. Half-upright position. Oxygen or artificial respiration if needed. Get immediate medical attention.
After skin contact	Rinse skin with plenty of water or shower for at least 15 minutes. 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	Rinse with plenty of water for several minutes (remove contact lenses if easily possible). Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.
After ingestion	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	Toxic if swallowed. Toxic in contact with skin. Fatal if inhaled. Causes severe skin burns and eye damage. Causes damage to

and delayed	organs. After inhalation, there may be irritation to the nose, throat, and lungs, nausea, and headache. Liquids have a strong irritant effect on the skin, and short-term contact can cause burns. Direct eye contact can cause serious damage. Oral irritation to the mouth and digestive tract.
5. Fire-fighting measures	
Suitable extinguishing agents	Foam, carbon dioxide, dry chemical powder, Sandy soil. Water is invalid.
Special hazards caused by the material, its products of combustion or flue gases	Flammable. Gives off irritating or toxic fumes (or gases) in a fire. Above 42.0 °C explosive vapour/air mixtures may be formed. Risk of fire and explosion on contact with strong acids or strong oxidizing agents. Can be released in case of fire: Nitrogen oxides, carbon oxides.
Protective equipment for fire-fighters	Wear self-contained breathing apparatus, wearing a gas mask, a chemical safety goggles, wear tape gas-protection clothing, antistatic work clothes, rubber gloves.
6. Accidental release measures	
Person-related safety precautions	Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. 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	Control spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in suitable container. Clean contaminated surface thoroughly. Large spill: Control with dikes or contain in pits, transfer using explosion-proof pumps to tank trucks for transport to recovery or disposal sites.
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.
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. Ensure workshop has good ventilation/exhaust device. In case of insufficient ventilation, wear suitable respiratory equipment.

Information about protection against explosions and fires	Keep away from heat, sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
STORAGE	
Requirements to be met by storerooms and containers	Keep in a cool, dry, well-ventilated place. Keep cool. Keep tightly closed until used. Store under lock and key. Keep in the original container or in a container with a corrosion-resistant lining.
Information about storage in one common storage facility	Store away from incompatible substances such as strong oxidants, acids, carbon dioxide, acyl chlorides, acid anhydrides. Protect from heat and dampness.
Further information about storage conditions	No data

8. Exposure controls/personal protection

Limit Values for Exposure					
Component	CAS number	ACGIH TLV-TWA	ACGIH TLV-STEL	NIOSH REL-TWA	NIOSH REL-STEL
DI-N-BUTYLAMINE	111-92-2	N.E.	N.E.	N.E.	N.E.
Appropriate engineering controls	Use adequate ventilation to keep airborne concentrations low.				
General protective and hygienic measures	Keep away from foodstuffs, beverages and food .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. After work, shower change clothes. Prior to employment and periodic physical examination.				
Personal protective equipment	Splash goggles, gloves, apron and a vapor respirator				
Breathing equipment	May contact the steam, wearing a tube type gas mask. Emergency rescue or evacuation, oxygen breathing apparatus, air breathing apparatus should be worn.				
Protection of hands	Wear appropriate chemical resistant gloves.				
Eye/Face protection	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. not established.					

9.Physical and chemical properties

Physical state	Transparent liquid
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Colour	Colourless
Odour	Ammonia odour
Melting point/freezing point	-59 °C
Boiling point or initial boiling point and boiling range	159 °C
Flammability	Flammable
Lower and upper explosion limit/flammability limit	Upper: 6.8 %(V/V) lower: 0.6 %(V/V)
Flash point	42.0 °C (Closed cup)
Auto-ignition temperature	260 °C
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility	Slightly soluble in water, easy to dissolve in alcohol and ether.
Partition coefficient: n-octanol/water(log value)	2.83
Vapour pressure	0.27 kPa (20 °C)
Density and/or relative density (water=1)	0.76
Relative vapour density (air=1)	4.46
Particle characteristics	Not applicable

10. Stability and reactivity

Reactivity	The substance is a strong base. It reacts violently with acid and is corrosive. Reacts violently with strong oxidants. Attacks many metals.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid (e.g. static discharge, shock or vibration)	Heat and flame and spark. The extreme temperatures and direct sunlight. Static discharge.
Incompatible materials	Avoid contact with strong oxidants, acids, carbon dioxide, acyl chlorides, acid anhydrides.
Hazardous decomposition products	May include nitrogen oxides, carbon oxides.

11. Toxicological information

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

Acute Toxicity	
DI-N-BUTYLAMINE (CAS 111-92-2)	LD50 (Oral, rat) 189 mg/kg LC50 (Inhalation, rat) 1.15 mg/L (4 h) LD50 (Dermal, rabbit) 769 mg/kg
Skin corrosion/Irritation	Causes severe skin burns.
Serious eye 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	Causes damage to organs.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Chronic Effects	Not classified
Further Information	No data

12. Ecological information

Ecotoxicity	
Aquatic Toxicity	DI-N-BUTYLAMINE (CAS 111-92-2) Test & Species 96 Hr LC50 fish: 5.5 mg/L 48 Hr EC50 Daphnia: N/A 72 Hr EC50 Algae: 16.91 mg/L
Persistence and degradability	Rapidly biodegradable.
Bioaccumulative potential	Not available
Mobility in soil	Not available
Additional Information	Toxic to aquatic life.

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.

14. Transport information

The Recommendation of Transport of Dangerous Goods(TDG)	
UN Number	UN 2248
Proper Shipping Name	DI-n-BUTYLAMINE
Class/Division	Class 8 Corrosive Substances
Package Group	PG II
Subsidiary risk	Class 3 Flammable Liquids

labelling pictogram



Maritime transport IMDG Being same with TDG
Marine pollutant (Yes/No): No
Air transport ICAO-TI and IATA-DGR Being same with TDG

15. Regulatory information

European/International Regulations

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

EINECS Status: This chemical is included in EINECS inventory.

EPA TSCA Status: This chemical is included in TSCA public inventory.

Canadian DSL This chemical is included in DSL.

(Domestic Substances List):

HMIS(Hazardous Material Identification System Ratings): Health: 3
Flammability: 2
Physical hazard: 1
Personal protection: J
(4. Severe Hazard; 3. Serious Hazard; 2. Moderate Hazard; 1. Slight Hazard; 0. Minimal Hazard)

WHMIS (Canadian B3, D2B, E

Workplace Hazardous Material Identification System Ratings):

GB 12268-2025 List of dangerous goods This chemical is a dangerous goods on the GB 12268-2025 list of dangerous goods.

16. other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This Material Safety Data Sheet was based on the "Globally Harmonized System of Classification and Labelling of Chemicals", "Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations", "International Maritime Dangerous Goods Code", Dangerous Goods Regulations by the "International Air Transport Association", the National Standards and other related dangerous chemicals management laws, regulations and standards, which are periodically updated and changed. To make dangerous goods /

hazardous chemicals comply with the relevant requirements of the latest management, regularly update is recommended.

This Material Safety Data Sheet has been compiled in both English and Chinese. For any discrepancies , the Chinese version shall prevail.

Abbreviations and acronyms	ADR: Agreement Concerning the International Carriage of Dangerous Goods by Road RID: Regulation Concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods Code IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air by the "International Civil Aviation Organization" (ICAO) EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent EC50: Effective concentration, 50 percent
Edit Date	24.10.2025
Update and Revise	Seventh edition
Edit Standard	<i>Globally Harmonized System of Classification and Labelling for Chemicals</i> Part 1.5
Revised Institution	Technology Center of Hangzhou Customs District