Chemical Safety Data Sheet MSDS / SDS

N,N'-DIMETHYL-1,6-HEXANEDIAMINE

Revision Date: 2024-12-21 Revision Number: 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name : N,N'-DIMETHYL-1,6-HEXANEDIAMINE

CBnumber : CB9164866

CAS : 13093-04-4

EINECS Number : 236-005-1

Synonyms: N1,N6-Dimethylhexane-1,6-diamine,N1,N1-dimethylhexane-1,6-diamine

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.

Uses advised against : none

Company Identification

Company : Chemicalbook

Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing

Telephone : 400-158-6606

SECTION 2: Hazards identification

Classification of the substance or mixture

Skin irritation, Category 2

Eye irritation, Category 2

Specific target organ toxicity - single exposure, Category 3

Label elements

Pictogram(s)

Signal word Warning

Hazard statement(s)

H314 Causes severe skin burns and eye damage

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary statement(s)

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

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

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

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.

Continuerinsing.

P405 Store locked up.

P501 Dispose of contents/container to.....

Prevention

P264 Wash ... thoroughly after handling.

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

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

P271 Use only outdoors or in a well-ventilated area.

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...

P321 Specific treatment (see ... on this label).

P332+P317 If skin irritation occurs: Get medical help.

P362+P364 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P319 Get medical help if you feel unwell.

Storage

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

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name : N,N'-DIMETHYL-1,6-HEXANEDIAMINE

Synonyms: N1,N6-Dimethylhexane-1,6-diamine,N1,N1-dimethylhexane-1,6-diamine

CAS : 13093-04-4
EC number : 236-005-1
MF : C8H20N2
MW : 144.26

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

no data available

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

Specific Hazards Arising from the Chemical

no data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

NFPA 704

FIRE



Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion

1 can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point

at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)

	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, N2)
	SPEC.		
	HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

Individual protection measures

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Melting point/freezing point and boiling point and boiling point or initial boiling point and boiling range Flammability no data available Lower and upper explosion no data available Ilimit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Physical state	no data available
Melting point/freezing point and 96°C/14mmHg(lit.) boiling range Flammability no data available Lower and upper explosion no data available limit/flammability limit Flash point 86°C Auto-ignition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Colour	no data available
Boiling point or initial boiling point and boiling point and boiling range Flammability no data available Lower and upper explosion no data available Ilimit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Odour	no data available
boiling range Flammability no data available Lower and upper explosion no data available limit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Melting point/freezing point	103°C(lit.)
Flammability no data available Lower and upper explosion no data available limit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Boiling point or initial boiling point and	96°C/14mmHg(lit.)
Lower and upper explosion no data available limit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	boiling range	
limit/flammability limit Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Flammability	no data available
Flash point 86°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Lower and upper explosion	no data available
Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	limit/flammability limit	
Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Flash point	86°C
pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Auto-ignition temperature	no data available
Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Decomposition temperature	no data available
Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	рН	no data available
Partition coefficient n-octanol/water no data available Vapour pressure 0.18mmHg at 25°C	Kinematic viscosity	no data available
Vapour pressure 0.18mmHg at 25°C	Solubility	no data available
	Partition coefficient n-octanol/water	no data available
Density and/or relative density 0.807g/mLat 25°C(lit.)	Vapour pressure	0.18mmHg at 25°C
	Density and/or relative density	0.807g/mLat 25°C(lit.)
Relative vapour density no data available	Relative vapour density	no data available
Particle characteristics no data available	Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

• Oral: no data available

Inhalation: no data availableDermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Not Listed.

PICCS

Not Listed.

Vietnam National Chemical Inventory

Listed.

IECSC

Not Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European 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

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.