SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-29 Print Date: 2024-02-06

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

1.1 Product identifiers

Product name	: N,N,N',N'-Tetramethyl-1,3-diaminobutane
Product Number	: N159375
Brand	: aladdin
CAS-No.	: 97-84-7

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

Identified u	ses
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1.3 Details of the supplier of the safety data sheet

: Shanghai Aladdin Biochemical Tech Co.,Ltd
: 36 Xinjinqiao Road, Shanghai
: 400-620-6333
: no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) CFR 1910.1200:Acute Toxicity - Oral [Category 4] Acute Toxicity - Dermal [Category 3] Acute Toxicity - Inhalation [Category 4] Eye Damage/Irritation [Category 1] Flammable Liquids [Category 3] Skin Corrosion/Irritation [Category 1C]

: Laboratory chemicals, Manufacture of substances.

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H226	Flammable liquid and vapor
H302	Harmful if swallowed
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition
	sources No smoking.

P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting//] equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302	IF ON SKIN:
P330	Rinse mouth.
P361	Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/ IF you feel unwell.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses if present and easy to do - continue rinsing.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: 1,3-Bis(dimethylamino)butane;N,N,N',N'-Tetramethyl-1,3-butanediamine
Formula	: C8H20N2
Molecular weight	: 144.26
CAS No.	: 97-84-7
EC-NO.	: no data available

Component Component	Classification Classification	Concentration Concentration
N,N,N',N'-Tetramethyl-1,3- diaminobutane		
	no data available	>98.0%(GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

no data available

If inhaled

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

In case of skin contact

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.

In case of 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 or doctor/physician.

If swallowed

Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Dry chemical, foam, carbon dioxide. Unsuitable extinguishing media Water (It may scatter and spread fire.)

5.2 Special hazards arising from the substance or mixture

These products include: Carbon oxides Nitrogen oxides.Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.Closed containers may explode from heat of a fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus if possible.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

6.2 Environmental precautions

Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Absorb spilled material with dry sand or inert absorbent before recycling it into an airtight container. If there is a large amount of spillage, use seals to control the spillage. Adhered or aggregated materials shall be disposed of in a timely manner in accordance with local laws and regulations. Prevention of secondary hazards: remove all sources of ignition. In case of fire, fire extinguishing devices shall be prepared. Use spark proof tools and explosion-proof equipment.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing. Conditions for safe storage, including any incompatibilities

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dark and well-ventilated place.Store under inert gas. Store locked up.Store away from incompatible materials such as oxidizing agents.Air-sensitive

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

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Appro	priate	engineering	controls
(ppi o	priate	engineering	001101010

Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Eye/face protection

Safety goggles. A face-shield, if the situation requires.

Skin protection

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it. Body Protection

Impervious gloves. Impervious protective clothing. Protective boots, if the situation requires. Respiratory protection

Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations. Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Clear Liquid color: Colorless - Pale yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	169°C (336°F)
g) Flash point	41°C (106°F)
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or	
explosive limits	Upper/lower:0.008;Upper:0.078
k) Vapour pressure	no data available
l) Vapour density	5
m) Relative density	0.8
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available

t) Oxidizing properties N

no data available

9.2 Other safety information

no data available

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

no data available

10.4 Conditions to avoid

Spark, Open flame, Static discharge

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

ihl-rat LC50:360 ppm/4Horl-rat LD50:750 mg/kg skn-rbt LD50:320 mg/kg ivn-mus LD50:180 mg/kg

Skin corrosion/irritation skn-rbt 1 mg open MOD Serious eye damage/eye irritation eye-rbt 5 mg MOD Respiratory or skin sensitisation no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available Specific target organ toxicity - single exposure

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> no data available Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available Additional Information RTECS Number:EJ7525000

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.Other considerations: Observe all federal, state and local regulations when disposing of the substance. Contaminated packaging

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information



DOT (US)				
UN number: UN2733	Packing group: III	Class: 3,8		
Proper shipping name: Polyamines,	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data		
flammable, corrosive, n.o.s	available	available		
Environmental Hazards: no data available				
IMDG				
UN number: UN2733	Packing group: III	EMS-No: EmS number: F-A, S-Q		
Proper shipping name: Polyamines, flammable, corrosive, n.o.s				
ΙΑΤΑ				
UN number: UN2733	Packing group: III	Class: 3,8		
Proper shipping name: Polyamines, fla	ammable, corrosive, n.o.s			

SECTION 15: Regulatory information

Toxic Substance Control Act

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory. US Federal Regulations

US Federal Regulations

SARA 313: Not Listed

SARA 302: Not Listed

State Regulations

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

Other Information

NFPA Rating: HMIS Classification: Health: 4 Health: 3 Flammability: 2 Flammability: 2 Instability: 0 Physical: 0

International Inventories

Canada: DSL On DSL

EC-No: 202-610-4

SECTION 16: Other information

Further information

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