HPC Standards GmbH
Am Wieseneck 7
04451 Cunnersdorf
Phone 0049 34291 3372-36
Fax 0049 34291 3372-39
www.hpc-standards.com
contact@hpc-standards.com

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 24 Jan 2024

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

3-(Dimethylamino)-1-propylamine

1.1. Catalog No.:

688770

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

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Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Dermal (Category 4), H312
Skin corrosion (Category 1B), H314
Skin sensitization (Category 1), H317
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.2. Label elements

2.2.1. Pictogram

2.2.2.

2.2 Label elements

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Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Danger
Hazard statement(s)
H226 Flammable liquid and vapor.
H302 + H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
Precautionary statement(s)
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P403 + P235 Store in a well-ventilated place. Keep cool.
Supplemental Hazard Statements
none
2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Lachrymator.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonyms : N,N-Dimethyl-1,3-diaminopropane
N,N-Dimethyl-1,3-propanediamine
Formula : C5H14N2
Molecular weight : 102,18 g/mol
CAS-No. : 109-55-7
EC-No. : 203-680-9
Index-No. : 612-061-00-6

Component	Classification	Concentration
N,N-dimethyl-1,3-diaminopropane CAS-No. EC-No. Index-No.	Flam. Liq. 3; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; STOT SE 3; H226, H302, H312, H314, H318, H317, H335	<= 100 %
109-55-7 203-680-9 612-061-00-6		

3.1.1. Formula

C5H14N2

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3.1.2. Molecular Weight (g/mol)

102.18

3.1.3. CAS-No.

109-55-7

4. FIRST AID MEASURES

4.1 Description of first-aid measures
General advice
Consult a physician. Show this material safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.
In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
Nitrogen oxides (NOx)
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
Use water spray to cool unopened containers.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
For personal protection see section 8.
6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Discharge into the environment must be avoided.
6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13).
6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.
Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store under inert gas.
Storage class
Storage class (TRGS 510): 3: Flammable liquids
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: clear, liquid
Color: colorless

b) Odor amine-like
c) Odor Threshold No data available
d) pH 12,7 at 100 g/l at 20 °C
e) Melting
point/freezing point
Melting point/freezing point: -69,99 °C - lit.
f) Initial boiling point
and boiling range
133 °C - lit.
g) Flash point 32 °C - closed cup
h) Evaporation rate No data available
i) Flammability (solid,
gas)
No data available
j) Upper/lower
flammability or
explosive limits
Upper explosion limit: 12,35 %(V)
Lower explosion limit: 2,3 %(V)
k) Vapor pressure 7 hPa at 20 °C
l) Vapor density 3,53 - (Air = 1.0)
m) Density 0,812 g/cm3 at 25 °C - lit.
Relative density No data available
n) Water solubility 1.000 g/l at 20 °C - soluble
o) Partition coefficient:
n-octanol/water
log Pow: -0,4
p) Autoignition
temperature
215 °C
at 1.013,25 hPa
q) Decomposition
temperature
No data available r) Viscosity Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
s) Explosive properties No data available
t) Oxidizing properties No data available
9.2 Other safety information
Relative vapor
density
3,53 - (Air = 1.0)

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
Heat, flames and sparks.
10.5 Incompatible materials
Strong oxidizing agents, Carbon dioxide (CO2)
10.6 Hazardous decomposition products
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - male and female - 410 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - Rat - 4 h - > 4 ppm
LD50 Dermal - Rat - 1.630,4 - 2.805,3 mg/kg
(OECD Test Guideline 402)
Skin corrosion/irritation
Skin - Rabbit
Result: Corrosive
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Corrosive
(OECD Test Guideline 405)
Respiratory or skin sensitization
Maximization Test - Guinea pig
Result: May cause sensitization by skin contact.
(OECD Test Guideline 406)
Germ cell mutagenicity
No data available
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Method: OECD Test Guideline 476
Result: negative
Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Method: OECD Test Guideline 474
Result: negative Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation. - Respiratory Tract
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
11.2 Additional Information
Repeated dose toxicity - Rat - Oral - NOAEL (No observed adverse effect level) - 50 mg/kg
- LOAEL (Lowest observed adverse effect level) - 250 mg/kg
RTECS: TX7525000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish static test LC50 - Leuciscus idus melanotus - 122 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia
and other aquatic
invertebrates
static test EC50 - Daphnia magna (Water flea) - 59,46 mg/l - 48 h
Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 56,2 mg/l - 72 h
12.2 Persistence and degradability
Biodegradability Result: 60 - 70 % - Readily biodegradable.
(OECD Test Guideline 301D)
12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6 Other adverse effects
Harmful to aquatic life.
May be harmful to aquatic organisms due to the shift of the pH.
No data available
Harmful to aquatic life with long lasting effects

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 2734 IMDG: 2734 IATA: 2734
14.2 UN proper shipping name
ADR/RID: POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (N,N-dimethyl-1,3-diaminopropane)
IMDG: POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (N,N-dimethyl-1,3-diaminopropane)
IATA: Polyamines, liquid, corrosive, flammable, n.o.s. (N,N-dimethyl-1,3-diaminopropane)
14.3 Transport hazard class(es)
ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)
14.4 Packaging group
ADR/RID: II IMDG: II IATA: II
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
No data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
: FLAMMABLE LIQUIDS
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any

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guarantee of the properties of the product. For lab use only!