

SILVER FERN CHEMICAL



Safety Data Sheet

Dimethylaminopropylamine (DMAPA)

SECTION 1: IDENTIFICATION

Product Name: Dimethylaminopropylamine

CAS Number: 109-55-7

Chemical Name: Dimethylaminopropylamine

Synonyms: DMAPA; N,N-Dimethyl-1,3-diaminopropane; N,N-Dimethyl-1,3-propanediamine

Uses: Laboratory chemicals, Manufacture of substances

Company

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SECTION 2: HAZARD IDENTIFICATION

Danger



GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Respiratory sensitisation (Category 1), H334
Acute aquatic toxicity (Category 3), H402

Hazard statement(s):

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H402	Harmful to aquatic life.

Precautionary statement(s):

P210	Keep away from heat/sparks/open flames/hot surfaces. - 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.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310	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.
P305 + P351 + P338 + P310	IF IN EYES: 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.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.
Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H402	Harmful to aquatic life.
Resp. Sens.	Respiratory sensitisation
Skin Corr.	Skin corrosion

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Content (W/W)	Ingredients
109-55-7	<=100%	Dimethylaminopropylamine

Molecular weight : 102.18 g/mol

Formula : $C_5H_{14}N_2$

SECTION 4: FIRST AID MEASURES

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. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician .

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 32 °C (90 °F) - closed cup

Lower/Upper explosion limit: Upper explosion limit: 12.35 %(V)/ Lower explosion limit: 2.3 %(V)

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NOx)

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

Further information: Use water spray to cool unopened containers

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Clean-up Procedures and containment:

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations

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

SECTION 7: HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage:

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.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal Protective Equipment (PPE)

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Body protection:

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

General safety and hygiene measures:

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

Appropriate engineering controls:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product

Components with workplace control parameters:

Contains no substances with occupational exposure limit values

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form: clear, liquid Colour: colourless
Odor	no data available
Odor Threshold	no data available
pH	12.7 at 100 g/l at 20 °C (68 °F)
Melting point/freezing Point	Melting point/range: -69.99 °C (-93.98 °F)

Initial boiling point and boiling range	133 °C (271 °F) - lit.
Flash point	32 °C (90 °F) - closed cup
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	Upper explosion limit: 12.35 %(V)/ Lower explosion limit: 2.3 %(V)
Vapor pressure	24 hPa (18 mmHg) at 37.7 °C (99.9 °F)/ 7 hPa (5 mmHg) at 20 °C (68 °F)
Vapor density	3.53 - (Air = 1.0)
Relative density	0.812 g/cm ³ at 25 °C (77 °F)
Water solubility	soluble
Partition Coefficient: n-octanol/water	log Pow: -0.4
Decomposition temperature:	no data available
Viscosity:	no data available
Explosive properties:	no data available
Relative vapour density	3.53 - (Air = 1.0)

SECTION 10: STABILITY AND REACTIVITY

Conditions to avoid: Heat, flames and sparks.

Substances to avoid: Strong oxidizing agents, Carbon dioxide (CO₂)

Hazardous reactions: Vapours may form explosive mixture with air.

Decomposition products: no data available

Chemical stability: Stable under recommended storage conditions

Reactivity: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - Rat - 1,870 mg/kg

LC50 Inhalation - Rat - 4 h - > 4 ppm

LD50 Dermal - Rabbit - 487 mg/kg

Skin corrosion/irritation :

Skin - Rabbit

Result: Open irritation test - 24 h

Serious eye damage/eye irritation :

No data available

Respiratory or skin sensitization :

No data available

Germ cell mutagenicity :

No data available

Carcinogenicity :

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity :

No data available

Specific target organ toxicity - single exposure:

No data available

Specific target organ toxicity - repeated exposure:

No data available

Additional Information:

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

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity :

- | | |
|---|---|
| Toxicity to fish | LC50 - Leuciscus idus (Golden orfe) - 122 mg/l - 96 h |
| Toxicity to daphnia and other aquatic invertebrates | EC50 - Daphnia magna (Water flea) - 59.5 mg/l - 48h |
| Toxicity to algae | EC50 - Desmodesmus subspicatus (green algae) - 56.2 mg/l - 72 h |

Biodegradability:

Readily biodegradable

Bioaccumulative Potential:

No data available

Other:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

May be harmful to aquatic organisms due to the shift of the pH.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal of substance:

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. Contact a licensed professional waste disposal service to dispose of this material.

Container disposal:

Dispose of as unused product

SECTION 14: TRANSPORT INFORMATION

DOT (US)

UN number: 2734 Class: 8 (3) Packing group: II
Proper shipping name: Polyamines, liquid, corrosive, flammable, n.o.s. (3-Aminopropyldimethylamine)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG

UN number: 2734 Class: 8 (3) Packing group: II EMS-No: F-E, S-C
Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (3-Aminopropyldimethylamine)

IATA

UN number: 2734 Class: 8 (3) Packing group: II
Proper shipping name: Polyamines, liquid, corrosive, flammable, n.o.s. (3-Aminopropyldimethylamine)

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

3-Aminopropyldimethylamine CAS-No. 109-55-7 Revision Date 1993-04-24

Pennsylvania Right To Know Components

3-Aminopropyldimethylamine CAS-No. 109-55-7 Revision Date 1993-04-24

New Jersey Right To Know Components

3-Aminopropyldimethylamine CAS-No. 109-55-7 Revision Date 1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm

SECTION 16: OTHER INFORMATION

HMIS Rating

Health hazard:	3
Chronic Health Hazard: *	
Flammability:	3
Physical Hazard	0

NFPA Rating

Health hazard:	3
Fire Hazard:	3
Reactivity Hazard:	0

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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