

# Safety Data Sheet

Version 3.0  
Revision Date 12/16/2014

SDS Number 300000008285  
Print Date 12/17/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dimethylaminopropylamine

Product Use Description : Chemical intermediate.

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc  
7201 Hamilton Blvd.  
Allentown, PA 18195-1501  
GST No. 123600835 FT0001  
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate  
1-800-345-3148 Chemicals Cust Serv  
1-800-752-1597 Gases/Electronics Cust Serv

Emergency telephone number (24h) : 800-523-9374 USA  
+1 610 481 7711 International

## 2. HAZARDS IDENTIFICATION

### GHS classification

Flammable liquids - Category 3  
Acute toxicity - Oral Category 4  
Skin corrosion - Category 1B  
Serious Eye Damage - Category 1  
Skin sensitization - Category 1

### GHS label elements

#### Hazard pictograms/symbols



Signal Word: Danger

#### Hazard Statements:

H226: Flammable liquid and vapour.

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

H302:Harmful if swallowed.  
H314:Causes severe skin burns and eye damage.  
H317:May cause an allergic skin reaction.

## Precautionary Statements:

**Prevention** : P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261:Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264:Wash hands thoroughly after handling.  
P280:Wear protective gloves/protective clothing/eye protection/face protection.

**Response** : 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.  
P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 :Immediately call a POISON CENTRE or doctor/physician.  
P333+P313 :If skin irritation or rash occurs: Get medical advice/attention.  
P370+P378 :In case of fire, use recommended extinguishing media for extinction.

## Hazards not otherwise classified

Harmful if swallowed.  
Keep away from heat and sources of ignition.  
Flammable.  
Severe eye irritant.  
Severe respiratory irritant.  
Severe skin irritant.  
May cause sensitization by skin contact.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
N,N-dimethyl-1,3-propanediamine	109-55-7	100 %

CHEMICAL FAMILY: Alkyldiamine.

## 4. FIRST AID MEASURES

**General advice** : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

**Eye contact** : Rinse immediately with plenty of water for at least 15 minutes.

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

- Skin contact** : Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately.
- Ingestion** : Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation** : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.
- Most important symptoms/effects - acute and delayed** : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease. Asthma. Skin disorders and Allergies.

## Immediate Medical Attention and Special Treatment

- Treatment** : NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.

## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Alcohol-resistant foam.  
Carbon dioxide (CO<sub>2</sub>).  
Dry chemical.  
Dry sand.  
Limestone powder.
- Specific hazards** : Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. In the event of fire, cool tanks with water spray. Downwind personnel must be evacuated. Fire or intense heat may cause violent rupture of packages. Flash back possible over considerable distance. May form explosive mixtures in air.
- Special protective equipment for fire-fighters** : Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses., Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures** : Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Remove all sources of ignition. Evacuate personnel to safe areas.
- Environmental precautions** : Shut off or remove all ignition sources. Construct a dike to prevent spreading.

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

Methods for cleaning up : Contact Air Products' Emergency Response Center for advice. Approach suspected leak areas with caution. Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal. Place in appropriate chemical waste container.

Additional advice : Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

---

## 7. HANDLING AND STORAGE

### Handling

See "Flammable and Combustible Liquid Code" NFPA No. 30, National Fire Protection Association, Boston, MA. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use only in well-ventilated areas. Avoid contact with eyes. Avoid breathing vapors and/or aerosols. Use personal protective equipment. When using, do not eat, drink or smoke.

### Storage

Do not store near acids. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Keep containers tightly closed in a dry, cool and well-ventilated place. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat and sources of ignition. Keep in a dry, cool place. Keep away from oxidizers.

### Technical measures/Precautions

Keep away from open flames, hot surfaces and sources of ignition.

---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering measures

Use explosion-proof equipment.

Apply process controls to ensure safe operating conditions. Assess potential flammability hazards based on flashpoint and potential ignition sources.

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

### Personal protective equipment

Respiratory protection : Wear appropriate respirator when ventilation is inadequate.

Hand protection : Butyl-rubber  
Nitrile rubber.  
Neoprene gloves.  
Polyvinyl Alcohol Gloves (PVA).  
Impervious gloves.  
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Chemical resistant goggles must be worn.

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

- Skin and body protection : Long sleeve shirts and trousers without cuffs.
- Environmental exposure controls : Shut off or remove all ignition sources.
- Special instructions for protection and hygiene : Discard contaminated leather articles. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid. Colorless.
- Odor : Ammoniacal.
- Odor threshold : No data available.
- pH : 11
- Melting point/range : No data available.
- Boiling point/range : 275 °F (135 °C)
- Flash point : 95 °F (35 °C)
- Evaporation rate : No data available.
- Flammability (solid, gas) : Not applicable.
- Upper/lower explosion/flammability limit : 12.3 %(V) / 2.3 %(V)
- Vapor pressure : 6.56 mmHg at 70 °F (21 °C)
- Water solubility : Completely soluble.
- Relative vapor density : 3.52
- Relative density : 0.83 (water = 1)
- Partition coefficient (n-octanol/water) : No data available.
- Auto-ignition temperature : 215 °C

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

Decomposition temperature : No data available.  
Viscosity : No data available.  
Molecular Weight : 102 g/mol  
Density : 51.815 lb/ft<sup>3</sup> (0.83 g/cm<sup>3</sup>) at 70 °F (21 °C)

## 10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.  
Conditions to avoid : Heat, flames and sparks.  
Materials to avoid : Organic acids (i.e. acetic acid, citric acid etc.).  
Mineral acids.  
Sodium hypochlorite.  
Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.  
Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.  
Oxidizing agents.  
Hazardous decomposition products : Nitric acid.  
Ammonia  
Nitrogen oxides (NO<sub>x</sub>).  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).  
Possibility of hazardous Reactions/Reactivity : No data available.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Likely routes of exposure

Effects on Eye : Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. Exposed individuals may see rings around bright lights. This effect is temporary and has no known residual effect. Product vapor can cause glaucopsia (corneal edema ) when absorbed into the tissue of the eye from the atmosphere. Severe eye irritation.  
Effects on Skin : No data available.  
Inhalation Effects : Harmful if inhaled and may cause delayed lung injury. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.  
Ingestion Effects : Harmful if swallowed.

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

---

Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease., Asthma., Skin disorders and Allergies.

## Acute toxicity

Acute Oral Toxicity : LD50 : > 1,640 mg/kg Species : Rat. Method : Estimated.

Inhalation : LC50 (1 h) : > 21 mg/l Species : Rat. Method : Estimated.

Acute Dermal Toxicity : No data is available on the product itself.

Skin corrosion/irritation : Severe skin irritation.

Serious eye damage/eye irritation : Severe eye irritation.

Sensitization. : May cause sensitization by skin contact.

## Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

Reproductive toxicity : No data is available on the product itself.

Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic toxicity (single exposure) : No data available.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

## Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage., May cause allergic skin reaction. Eye disease., Asthma., Skin disorders and Allergies.

---

## 12. ECOLOGICAL INFORMATION

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

## Ecotoxicity effects

- Aquatic toxicity : No data is available on the product itself.  
Toxicity to other organisms : No data available.

## Persistence and degradability

- Biodegradability : No data is available on the product itself.  
Biochemical Oxygen Demand (BOD) : 308.000 mg/l  
Chemical Oxygen Demand (COD) : 140.000 mg/l  
Mobility : No data available.  
Bioaccumulation : No data is available on the product itself.

---

## 13. DISPOSAL CONSIDERATIONS

- Waste from residues / unused products : ignitable, hazardous waste number D001 Contact supplier if guidance is required.  
Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

---

## 14. TRANSPORT INFORMATION

### DOT

- UN/ID No. : UN2734  
Proper shipping name : Amines, liquid, corrosive, flammable, n.o.s., (N,N-dimethyl-1,3-propanediamine)  
Class or Division : 8  
Packing group : II  
Label(s) : 8 (3)  
Marine Pollutant : No

### IATA

- UN/ID No. : UN2734  
Proper shipping name : Amines, liquid, corrosive, flammable, n.o.s., (N,N-dimethyl-1,3-propanediamine)  
Class or Division : 8  
Packing group : II  
Label(s) : 8 (3)  
Marine Pollutant : No



# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

## IMDG

UN/ID No. : UN2734  
Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S., (N,N-dimethyl-1,3-propanediamine)  
Class or Division : 8  
Packing group : II  
Label(s) : 8 (3)  
Marine Pollutant : No

## TDG

UN/ID No. : UN2734  
Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S., (N,N-dimethyl-1,3-propanediamine)  
Class or Division : 8  
Packing group : II  
Label(s) : 8 (3)  
Marine Pollutant : No

## Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

## 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification  
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

# Safety Data Sheet

Version 3.0

Revision Date 12/16/2014

SDS Number 300000008285

Print Date 12/17/2014

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

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

## 16. OTHER INFORMATION

### HMIS Rating

Health : 3  
Flammability : 3  
Physical hazard : 0

Prepared by : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

Telephone : 1-610-481-4911 Corporate  
1-800-345-3148 Chemicals Cust Serv  
1-800-752-1597 Gases/Electronics Cust Serv

Preparation Date : 12/17/2014

For additional information, please visit our Product Stewardship web site at  
<http://www.airproducts.com/productstewardship/>