

**Material Safety Data Sheet**  
acc. to OSHA and ANSI

Printing date 11/11/2008

Reviewed on 11/11/2008

**1 Identification of substance:**

**Product details:**

**Product name:** Dipropylentriamine  
**Stock number:** L10985  
**Manufacturer/Supplier:**  
Alfa Aesar, A Johnson Matthey Company  
Johnson Matthey Catalog Company, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Emergency Phone: (978) 521-6300  
CHEMTRREC: (800) 424-9300  
Web Site: www.alfa.com

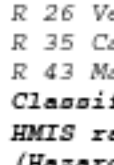
**Information Department:** Health, Safety and Environmental Department  
**Emergency information:**  
During normal hours the Health, Safety and Environmental Department.  
After normal hours call Chemtrrec at (800) 424-9300.

**2 Composition/Data on components:**

**Chemical characterization:**  
**Description: (CAS#)**  
Dipropylentriamine (CAS# 56-18-8): 100%  
**Identification number (s):**  
**EINECS Number:** 200-261-2  
**Index number:** 612-063-00-7

**3 Hazards identification**

**Hazard description:**



T+ Very toxic

**Information pertaining to particular dangers for man and environment**

- R 22 Harmful if swallowed.
- R 24 Toxic in contact with skin.
- R 26 Very toxic by inhalation.
- R 35 Causes severe burns.
- R 43 May cause sensitization by skin contact.

**Classification system**  
**HMS ratings (scale 0-4)**  
**(Hazardous Materials Identification System)**

HEALTH	3	Health (acute effects) - 3
FIRE	1	Flammability - 1
REACTIVITY	1	Reactivity - 1

**4 First aid measures**

**General information**

Immediately remove any clothing soiled by the product.  
Remove breathing apparatus only after contaminated clothing has been completely removed.

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In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
**After skin contact**  
Immediately wash with water and soap and rinse thoroughly.  
**After eye contact**  
Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

**5 Fire fighting measures**

**Suitable extinguishing agents**  
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**  
In case of fire, the following can be released:  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)

**Protective equipment:**  
Wear self-contained respirator.  
Wear fully protective impervious suit.

**6 Accidental release measures**

**Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.  
**Measures for environmental protection:**  
Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

**Additional information:**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

**Handling**

**Information for safe handling:**  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.  
Open and handle container with care.

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**Product name:** Dipropylentriamine

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**Information about protection against explosions and fires:**  
Keep ignition sources away.

**Storage**  
**Requirements to be met by storerooms and receptacles:**  
No special requirements.  
**Information about storage in one common storage facility:**  
Store away from oxidizing agents.

**Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

**8 Exposure controls and personal protection**

**Additional information about design of technical systems:**  
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:**  
Not required.  
**Additional information:** No data

**Personal protective equipment**  
**General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Remove all soiled and contaminated clothing immediately.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.

**Breathing equipment:**  
Use suitable respirator when high concentrations are present.  
**Protection of hands:**  
Check protective gloves prior to each use for their proper condition.  
Impervious gloves

**Material of gloves**  
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.  
**Eye protection:**  
Safety glasses  
Tightly sealed goggles  
Full face protection

**Body protection:** Protective work clothing.

**9 Physical and chemical properties:**

**General information**

**Form:** Liquid  
**Color:** Colorless  
Pale yellow  
**Odor:** Not determined

**Change in condition**  
**Melting point/Melting range:** -16°C (3°F)

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<b>Boiling point/Boiling range:</b>	235°C (455°F)
<b>Sublimation temperature / start:</b>	Not determined
<b>Flash point:</b>	117°C (243°F)
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Density at 20°C (68°F):</b>	0.938 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with Water:</b>	Fully miscible

**10 Stability and reactivity**

**Thermal decomposition / conditions to be avoided:**  
Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents  
**Dangerous reactions:** No dangerous reactions known  
**Dangerous products of decomposition:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides

**11 Toxicological information**

**Acute toxicity:**

LD/CSO values that are relevant for classification:		
Oral	LD50	425 mg/kg (mouse)
		738 mg/kg (rat)
Dermal	LD50	110 µL/kg (rabbit)
Inhalative	LC50/4H	30 mg/m <sup>3</sup> /4H (rat)
Irritation of skin	moderate	470 mg (rabbit)
Irritation of eyes	moderate	470 mg (rabbit)

**Primary irritant effect:**  
**on the skin:**  
Strong corrosive effect on skin and mucous membranes.  
Irritant to skin and mucous membranes.  
**on the eye:**  
Strong corrosive effect.  
Irritating effect.

**Sensitization:** Sensitization possible through skin contact.  
**Subacute to chronic toxicity:**  
The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:

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**Lungs, Thorax, or Respiration - dyspnea.**  
**Lungs, Thorax, or Respiration - cyanosis.**  
**Skin and Appendages - hair.**  
**Skin and Appendages - primary irritation (after topical exposure).**

**Subacute to chronic toxicity:**  
Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.

**Additional toxicological information:**  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**12 Ecological information:**

**General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Do not allow material to be released to the environment without proper governmental permits.

**13 Disposal considerations**

**Product:**  
**Recommendation**  
Consult state, local or national regulations to ensure proper disposal.  
**Uncleaned packaging:**  
**Recommendation:** Disposal must be made according to official regulations.  
**Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

**DOT regulations:**



**Hazard class:** 8  
**Identification number:** UN269  
**Packing group:** III  
**Proper shipping name (technical name):** 3,3'-IMINODIPROPYLAMINE

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**Product name:** Dipropylentriamine

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**Label:** 8  
**Land transport ADR/RID (cross-border)**



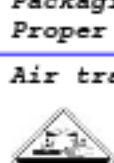
**ADR/RID class:** 8 (C7) Corrosive substances  
**Danger code (Kemler):** 80  
**UN-Number:** 2269  
**Packaging group:** III  
**Description of goods:** 2269 3,3'-IMINODIPROPYLAMINE

**Maritime transport IMDG:**



**IMDG Class:** 8  
**UN Number:** 2269  
**Label:** 8  
**Packaging group:** III  
**Proper shipping name:** 3,3'-IMINODIPROPYLAMINE

**Air transport ICAO-TI and IATA-DGR:**



**ICAO/IATA Class:** 8  
**UN/ID Number:** 2269  
**Label:** 8  
**Packaging group:** III  
**Proper shipping name:** 3,3'-IMINODIPROPYLAMINE

**15 Regulations**

**Product related hazard informations:**

**Hazard symbols:**  
T+ Very toxic

- R 22 Harmful if swallowed.
- R 24 Toxic in contact with skin.
- R 26 Very toxic by inhalation.
- R 35 Causes severe burns.
- R 43 May cause sensitization by skin contact.

**Safety phrases:**  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
28 After contact with skin, wash immediately with plenty of water

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36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
45 In case of accident or if you feel unwell, seek medical advice immediately.

**National regulations**  
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.  
All components of this product are listed on the Canadian Domestic Substances List (DSL).

**Information about limitation of use:**  
For use only by technically qualified individuals.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing MSDS:** Health, Safety and Environmental Department.  
**Contact:** Paul V. Connolly