



# DIISOPROPYLAMINE

Material Safety Data Sheet

Arkema Inc.

## 1 PRODUCT AND COMPANY IDENTIFICATION

### Thio and Fine Chemicals

Arkema Inc.  
2000 Market Street  
Philadelphia, PA 19103

### EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887  
Medical: Rocky Mountain Poison Control Center  
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service	1-800-628-4453	8:30 to 5:30 EST

Product Name DIISOPROPYLAMINE  
Product Synonym(s)  
Chemical Family Alkyl amines  
Chemical Formula C<sub>6</sub>H<sub>15</sub>N  
Chemical Name 2-Propanamine, N-(1-methyl ethyl)-  
EPA Reg Num  
Product Use

## 2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Diisopropylamine	108-18-9	99%	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation.

The components of this product are all on the TSCA Inventory list.

## 3 HAZARDS IDENTIFICATION

### Emergency Overview

Colorless liquid, strong ammonia odor

#### DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

CAUSES RESPIRATORY TRACT IRRITATION.

CAUSES EYE AND SKIN BURNS. MAY CAUSE BLINDNESS.

HARMFUL IF SWALLOWED.

MAY CAUSE NAUSEA, HEADACHE OR DIZZINESS.

### Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be slightly to moderately toxic if swallowed, practically non-toxic if inhaled or absorbed through skin and corrosive to eyes and skin. Vapor or mist may be severely irritating to the eyes and upper respiratory tract and may produce nausea, headache and dizziness. Temporary and reversible visual disturbances characterized by mildly blurred vision, a blue-gray discolorization of sight (blue haze) or halo vision (appearance of a halo when looking at light sources) may occur. If swallowed, this material may cause mild to severe burns to the mouth, throat and digestive tract. Medical conditions that may be aggravated by exposure to this material



include lung disease or limited respiratory capacity.

#### 4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.

IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. Call a Poison Control Center. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### 5 FIRE FIGHTING MEASURES

##### Fire and Explosive Properties

Auto-Ignition Temperature	316 C (600 F)	
Flash Point	-13.8 C (7.16 F)	Flash Point Method
Flammable Limits- Upper	7.1	
Lower	1.1	

##### Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

##### Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

##### Fire and Explosion Hazards

When burned, the following hazardous products of combustion can occur: Oxides of carbon and nitrogen

#### 6 ACCIDENTAL RELEASE MEASURES

##### In Case of Spill or Leak

Extinguish or turn off all ignition sources. Ventilate the space involved. Wear appropriate personal protection equipment as indicated in Section 8 of this MSDS. Contain spill with inert materials. Construct a dike to prevent spreading. Collect with non-sparking tools to a suitable container. Prevent waterway contamination. Absorb liquid onto inert absorbent and place in DOT approved drums for disposal. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

#### 7 HANDLING AND STORAGE

##### Handling

- Do not taste or swallow.
- Do not breathe vapor.
- Do not get in eyes, on skin or on clothing.
- Keep container closed.

**7 HANDLING AND STORAGE**

Use only with adequate ventilation.  
Wash thoroughly after handling.  
Keep away from heat, sparks and flame.

CONTAINER HAZARDOUS WHEN EMPTY. Emptied container retains vapor and product residue. Follow labeled warnings even after container is emptied. RESIDUAL VAPORS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL GRIND OR WELD ON OR NEAR THIS CONTAINER. Improper disposal or reuse of this container may be dangerous and/or illegal.

**Storage**

Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly rated, grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate and create a fire hazard. All storage containers, including containers such as drums, cylinders and IBC's, must be bonded and grounded during filling and emptying operations. Store away from oxidizers and reactive materials. Keep container tightly closed. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Controls**

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Eye / Face Protection**

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

**Skin Protection**

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash skin thoroughly after handling.

**Respiratory Protection**

Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Airborne Exposure Guidelines for Ingredients**

Exposure Limit

Value



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## Diisopropylamine

ACGIH Skin designator	-	Y
ACGIH TWA	-	5 ppm 21 mg/m3
OSHA Skin designator	-	Y
OSHA TWA PEL	-	5 ppm 20 mg/m3

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Colorless liquid, strong ammonia odor
pH	11.8 in aqueous soln.
Specific Gravity	0.71 @ 22 C
Vapor Pressure	50 mmHg
Vapor Density	3.5
Melting Point	NE
Freezing Point	-61 C (-78 F)
Boiling Point	84 C (183 F)
Solubility In Water	Completely soluble @ 20 C
Solubility in Other Materials	Ethanol, acetone
Percent Volatile	100
Molecular Weight	101.19
n-Octanol/Water Partition Coefficient	log Pow = 1.41
Other Physical Data	Odor threshold: 1.8 ppm Henry's constant: 9.6 Pa m3/mol Coefficient of volumetric expansion at 55 C: 0.0014/ deg C

## 10 STABILITY AND REACTIVITY

### Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

### Incompatibility

Avoid contact with oxidizers, perchlorates, nitrates and peroxides as violent reaction may occur. All amines, under certain conditions, may form nitrosamines; avoid mixing with Nitrite.

### Hazardous Decomposition Products

None known.

## 11 TOXICOLOGICAL INFORMATION

### Toxicological Information

Single exposure (acute) studies indicate:

Oral - Slightly to Moderately Toxic to Rats (LD50 420-770 mg/kg)

Dermal - Practically Non-toxic to Rabbits (LD50 2,900 mg/kg)

Inhalation - Practically Non-toxic to Rats (4-hr LC50 5.3 mg/l)

Skin Irritation - Corrosive to Rabbits

**11 TOXICOLOGICAL INFORMATION****Eye Irritation - Corrosive to Rabbits**

Workers exposed to elevated concentrations complained of nausea, headache and temporary impairment of vision described as haziness or halos. No allergic skin reactions were observed in guinea pigs following repeated exposure. Repeated inhalation exposure of rats resulted in signs of eye and lung irritation including corneal damage or lung and nasal mucosa inflammation. Reductions in lymphocyte counts and body weight were observed as well as some increase in erythrocyte parameters. Repeated inhalation exposures in rabbits, rats, cats and guinea pigs resulted in some early deaths, moderate to severe pulmonary irritation and cloudy swelling of the cornea with partial or total loss of vision. Repeated oral administration to rats produced severe gastric irritant effects including ulceration of the stomach and small intestine accompanied by weight loss, alterations in some organ weight and decreased neutrophil counts. Repeated application to the skin of rats produced increased testes weights and decreased heart weights; no histopathological changes were observed in these two tissues. Generally, no genetic changes were observed in tests using bacteria and animal or human cells.

**12 ECOLOGICAL INFORMATION****Ecotoxicological Information**

Data on this material and/or its components are summarized below.

**Diisopropylamine**

This material is practically non-toxic to slightly toxic to *Daphnia magna* (LC50 25.8-110 mg/l). It is slightly toxic to freshwater fish (96-hr LC50 22-32 mg/l), fathead minnow (LC50 40 mg/l), bluegill sunfish (LC50 75 mg/l), rainbow trout (LC50 42 mg/l) and algae (LC50 20-48 mg/l), and is practically non-toxic to medaka and stickleback (LC50 420-840 mg/l).

**Chemical Fate Information**

Data on this material and/or its components are summarized below.

**Diisopropylamine**

This material is not readily biodegradable, but is inherently biodegradable (8% after 14-days). It is practically not bioaccumulable (log Pow 1.41) and is degraded in air by OH radicals (half-life 4-hours). It is moderately adsorbed in soils and sediments (log Koc 2.27) and has evaporation half-lives in aqueous environments of 12-hours (river) and 7-days (pond).

**13 DISPOSAL CONSIDERATIONS****Waste Disposal**

Incineration is the recommended method for disposal observing all local, state and federal regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.



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## 14 TRANSPORT INFORMATION

DOT Name Diisopropylamine  
DOT Technical Name  
DOT Hazard Class 3(8)  
UN Number UN1158  
DOT Packing Group PG II  
RQ  
DOT Special Information Primary Hazard - Flammable  
Subsidiary Hazard - Corrosive

## 15 REGULATORY INFORMATION

### Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	Y
Delayed (Chronic) Health	N	Reactive	N
		Sudden Release of Pressure	N

The components of this product are all on the TSCA Inventory list.

### Ingredient Related Regulatory Information:

#### SARA Reportable Quantities

CERCLA RQ

SARA TPQ

Diisopropylamine

100 LBS

#### Massachusetts Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

Diisopropylamine

#### New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

Diisopropylamine

#### Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

Diisopropylamine

## 16 OTHER INFORMATION

### Revision Information

Revision Date 29 JAN 2008 Revision Number 10  
Supercedes Revision Dated 17-MAR-2005

### Revision Summary

HEIS update.

### Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark



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