



DIETHYLAMINOPROPYLAMINE (DEAPA)

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 DIETHYLAMINOPROPYLAMINE (DEAPA)

Product Synonym(s)

Chemical Family Amine

Chemical Formula

Chemical Name N,N-Diethyl-1,3-propanediamine

EPA Reg Num

Product Use

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Diethylaminopropylamine (DEAPA)	104-78-9	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!

FLAMMABLE LIQUID AND VAPOR.

CAUSES EYE AND SKIN BURNS. MAY CAUSE BLINDNESS.

CAUSES DIGESTIVE TRACT BURNS.

HARMFUL IF ABSORBED THROUGH SKIN.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

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 toxic if swallowed, moderately toxic if absorbed through skin and corrosive to eyes and skin. Repeated exposure may cause an allergic skin reaction. Exposure to vapor may be moderately irritating to the eyes and respiratory tract. If swallowed, this material may cause mild to severe burns to the mouth, throat and digestive tract.



4 FIRST AID MEASURES

IN CASE OF CONTACT, immediately wash with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. 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.

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

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature

Flash Point

52 C (126 F)

Flash Point Method

TCC

Flammable Limits- Upper
Lower

Extinguishing Media

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

Fire Fighting Instructions

Water may be ineffective. Use water spray or water fog to cool surrounding surfaces and prevent fire damage or rupture of containers. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting 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:

Carbon dioxide

Carbon monoxide

Nitrogen oxides

6 ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Ventilate the area. Contain spill by building a dike using absorbent material. Consult with environmental engineer or professional to determine if neutralization is appropriate and for handling procedures for residual materials. Do not use solid bleach for neutralization, as fire or violent reaction can occur. Collect the liquid and solid absorbent into a drum approved for waste disposal. Flush area with water. 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.

**6 ACCIDENTAL RELEASE MEASURES****7 HANDLING AND STORAGE****Handling**

Keep away from heat, sparks and flame.
Do not get in eyes, on skin or on clothing.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Do not taste or swallow.

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

The maximum recommended storage temperature for this material is 50 C or 122 F. 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

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

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

The components of this product have no established Airborne Exposure Guidelines

- 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	NE
Specific Gravity	0.82 @ 22 C
Vapor Pressure	5.3 mmHg (7 hPa mbar) @ 30 C
Vapor Density	825 kg/m ³ @ 20 C
Melting Point	NE
Freezing Point	<- 50 C
Boiling Point	169 C @ 1013 mbar
Solubility In Water	Completely soluble @ 20 C
Solubility in Other Materials	Methanol
Molecular Weight	130
n-Octanol/Water Partition Coefficient	log Pow = 0.3
Other Physical Data	Refraction index: 1.4355

10 STABILITY AND REACTIVITY**Stability**

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

Hazardous Polymerization

Does not occur.

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

**11 TOXICOLOGICAL INFORMATION****Toxicological Information**

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

Single exposure (acute) studies indicate:

Oral - Slightly Toxic to Rats (LD50 1,410 mg/kg)

Dermal - Moderately Toxic to Rabbits (LD50 620 mg/kg)

Eye Irritation - Corrosive to Rabbits

Skin Irritation - Corrosive to Rabbits (4-hr exposure)

Both positive and negative responses were observed in skin allergy tests following repeated exposure in guinea pigs. No genetic changes were observed in tests using bacteria or animal or human cells.

12 ECOLOGICAL INFORMATION**Ecotoxicological Information**

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

This material is slightly toxic to Daphnia (48-hr EC50 30.2 mg/l) and algae (72-hr EC50 30 mg/l).

Chemical Fate Information

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

This material is not readily biodegradable (0% after 28-days). The log Pow is 0.3

13 DISPOSAL CONSIDERATIONS**Waste Disposal**

Incineration is the recommended method for disposal observing all local, state and federal regulations.

14 TRANSPORT INFORMATION

DOT Name	3-Diethylamino-propylamine
DOT Technical Name	
DOT Hazard Class	3(8)
UN Number	2684
DOT Packing Group	PG III
RQ	No
Marine Pollutant	No
DOT Special Information	Primary Hazard - FLAMMABLE Subsidiary Hazard - CORROSIVE

FOR DOMESTIC SHIPMENTS ADD:
Subsidiary Hazard - TOXIC

15 REGULATORY INFORMATION



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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.

International Inventory Memo

All ingredients of this product are listed on the following international inventories:

All the ingredients of this product are listed on the following international inventories:

- Canada (DSL)
- Europe (EINECS)
- Korea (ECS)
- Japan (ENCS)
- Australia (AICS)
- Philippines (PICCS)

Ingredient Related Regulatory Information:

SARA Reportable Quantities

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Diethylaminopropylamine (DEAPA)	NE	NE

Massachusetts Right to Know

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

Diethylaminopropylamine (DEAPA)

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.

Diethylaminopropylamine (DEAPA)

Pennsylvania Right to Know

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

Diethylaminopropylamine (DEAPA)

16 OTHER INFORMATION

Revision Information

Revision Date	17 MAR 2005	Revision Number	6
Supersedes Revision Dated	19-OCT-2004		

Revision Summary

Revised section 9.

Key

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



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