



MATERIAL SAFETY DATA SHEET

Emergency Phone 504-344-7147

97.5.13

PRODUCT IDENTIFICATION

TRADE NAME: DAMA™ 10 Amine
CHEMICAL NAME: Didecylmethylamine
CHEMICAL FAMILY: Tertiary Amine
CHEMICAL FORMULA: $[\text{CH}_3(\text{CH}_2)_9]_2\text{NCH}_3$
CAS NO.: 7396-58-9

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601 - 2629).

SUMMARY OF HAZARDS

Causes burns to the eyes.
Causes delayed burns to the skin.

HAZARDOUS COMPONENTS

<u>COMPONENT NAME</u>	<u>CAS NO.</u>	<u>EXPOSURE LIMIT</u>
Didecylmethylamine	7396-58-9	Not established by OSHA/ACGIH.

CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR: Clear liquid/fatty amine odor.
BOILING POINT: ~ 370°C/698°F.
VAPOR PRESSURE: < 0.1 mm Hg @ 25°C/77°F.
VAPOR DENSITY: ~ 10.7
SOLUBILITY IN WATER: < 1.0%
SPECIFIC GRAVITY: 0.81

10/14/85

Ethyl Corporation - Chemicals Group

Ethyl Tower 451 Florida Blvd., Baton Rouge, LA 70801
REPRESENTING ETHYL FOREIGN SALES CORPORATION FOR EXPORT SALES

TRADE NAME: DAMA™ 10 Amine

FIRE AND EXPLOSION HAZARDS	FLASH POINT (METHOD):	Greater than 93°C/200°F (PMCC).
	FLAMMABLE LIMITS:	Not established.
	EXTINGUISHING MEDIA:	Dry chemical, water spray (fog), foam or carbon dioxide.
	HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:	Include oxides of carbon and nitrogen.
	SPECIAL FIRE FIGHTING PROCEDURES:	Avoid breathing smoke and vapor.
	UNUSUAL FIRE AND EXPLOSION HAZARDS:	None.

REACTIVITY DATA	STABILITY:	Stable.
	CONDITIONS TO AVOID:	None.
	MATERIALS TO AVOID:	Copper and copper containing alloys.
	HAZARDOUS POLYMERIZATION:	Will not occur.

HEALTH HAZARDS	EYE CONTACT:	Expected to cause burns.
	SKIN IRRITATION:	Initially a moderate skin irritant. Prolonged skin contact may cause a severe effect progressing to a delayed burn withing 48 hours. Transient contact may produce dermatitis, possibly delayed.

CHRONIC EFFECTS OF OVEREXPOSURE:
None known.

TRADE NAME: DAMA™ 10 Amine

TOXICITY DATA:

ORAL LD₅₀ (rat) = 900
mg/kg.
DERMAL LD₅₀ (rabbit) =
> 5000 mg/kg.

**EMERGENCY
FIRST
AID
PROCEDURES**

INHALATION:

If symptoms occur, remove to fresh air.

EYE CONTACT:

Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Clothing cannot be washed clean and should not be reused for any purpose.

INGESTION:

If symptoms occur, give two glasses of water. Do not induce vomiting. Get medical attention.

**EXPOSURE
CONTROL
INFORMATION**

EXPOSURE LIMITS:

Not established by OSHA or ACGIH.

EYE PROTECTION:

Chemical goggles or face shield when splash may occur.

PROTECTIVE GLOVES:

Resistant to chemical penetration.

RESPIRATORY PROTECTION: NIOSH approved supplied-air respirator when exposed to vapors from heated material.

MECHANICAL VENTILATION: Recommended.

LOCAL VENTILATION:

At bulk vessel openings when handling heated materials.

10/14/85
Continued

TRADE NAME: DAMA™ 10 Amine

OTHER:

If skin contact or contamination of clothing is likely, protective clothing should be worn.

SPILLS OR LEAKS:

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

**ENVIRONMENTAL
PROTECTION**

DISPOSAL METHODS:

Under the CERCLA/RCRA regulations in effect July 3, 1985, this product is not regulated as a hazardous waste or material. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state, and federal regulations.

STORAGE REQUIREMENT:

Store in steel or glass lined storage vessels.

REVISED: 10/14/85

SUPERSEDES: 09/16/81

T&IH File Code: TX 00703-ND-0

MSDS prepared by: Toxicology and Industrial Hygiene Department
Ethyl Corporation

FOR ADDITIONAL NONEMERGENCY MSDS INFORMATION, CONTACT:

TOXICOLOGY AND INDUSTRIAL HYGIENE DEPARTMENT
ETHYL CORPORATION
451 FLORIDA ST.
BATON ROUGE, LA 70801
(504) 388-7717

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST
THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD
COMMUNICATION RULE, 29 CFR 1910.1200(g)(2).

PRODUCT IDENTIFICATION

TRADE NAME AND SYNONYMS

The name under which the product is sold and common synonyms.

CHEMICAL NAME and FORMULA

Chemical descriptive name and the chemical formula.

CAS NO.

Chemical Abstract Service registry number which identifies the product.

SUMMARY OF HAZARDS

Emphasizes major hazard(s) associated with the chemical. Further details are provided in subsequent sections.

COMPONENTS

COMPONENT NAME

Chemical, generic, or proprietary name that identifies the product or components of a mixture. Inclusion of a component is not necessarily based on hazard criteria.

% (PERCENT)

Percentage by weight or volume of the component in the total product.

EXPOSURE LIMIT

The airborne concentration at which most workers can be exposed without any expected adverse effects. Source may be Ethyl guideline, ACGIH TLV, or OSHA PEL.

CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR

Description of material at normal temperature and pressure that may be useful in identifying the presence of the product.

BOILING POINT

Temperature at which a liquid changes to a vapor at 760 mm Hg or some specified pressure.

MELTING POINT

Temperature at which a solid changes to a liquid at 760 mm Hg or some specified pressure.

VAPOR PRESSURE

Pressure exerted by a saturated vapor above its liquid.

SOLUBILITY IN WATER

Solubility of the product, by weight, in water at ambient or specified temperature.

SPECIFIC GRAVITY

Ratio of the weight of a volume of the product to the weight of an equal volume of water (liquids/solids) or air (gases).

EVAPORATION RATE

Ratio of the rate of vaporization of the product to the rate of a known material.

PERCENT VOLATILES

The percentage of the product (liquid or solid) that will evaporate at ambient temperature.

FIRE AND EXPLOSION HAZARDS

FLASH POINT(CLOSED CUP METHOD)

Lowest temperature at which the chemical will give off enough vapor to ignite.

FLAMMABLE LIMITS

Range of vapor concentration (percent by volume in air) which will burn or explode in the presence of spark or flame. LEL is the lower explosive limit and UEL is the upper explosive limit.

EXTINGUISHING MEDIA

The fire fighting agents which should be used.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS

Known hazardous products resulting from heating or burning the compound.

SPECIAL FIREFIGHTING PROCEDURES

General firefighting procedures of chemical fires are not described, but special procedures are given.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Hazards not covered by other sections of the MSDS pertaining to chemical reactions in the presence of heat and /or fire.

REACTIVITY DATA

STABILITY

Indicates the susceptibility of dangerous decomposition by the chemical.

CONDITIONS AND MATERIALS TO AVOID

Gives the conditions and materials that may cause unstable situations.

HAZARDOUS DECOMPOSITION PRODUCTS

Describes the hazardous materials produced from a chemical reaction.

HAZARDOUS POLYMERIZATION

Indicates the tendency of the chemical's molecules to combine in a violent reaction.

HEALTH HAZARDS

Gives the effects of over-exposure to the chemical by skin or eye contact, breathing vapors or dust, and ingestion. Common symptoms which may occur from exposure to the chemical are given.

CHRONIC EFFECTS

Refers to the effects most likely to occur after repeated or prolonged overexposure to the chemical.

OTHER HEALTH EFFECTS

May include medical conditions which have been known to be aggravated by exposure to the chemical.

TOXICITY

Gives numerical results from animal tests on the compound. LD₅₀ or LC₅₀ is the dose level that kills half of the animals tested.

EMERGENCY FIRST AID

Gives emergency and first aid instructions for treating overexposure by inhalation, ingestion, and skin and eye contact.

NOTE TO PHYSICIAN

May give any contraindicated treatment or recommended treatment for a licensed health care professional to conduct.

EXPOSURE CONTROL INFORMATION

EYE PROTECTION

Specification of eyes or face protection beyond normal use of safety glasses.

PROTECTIVE GLOVES

Specification of gloves required, based on type and degree of hazard from skin contact.

RESPIRATORY PROTECTION

Specification of the type of respirator recommended for use during routine or emergency situations.

VENTILATION

Specification of the type (local/general) of ventilation recommended to capture contaminants or prevent the build-up of hazardous atmospheres.

OTHER

Specification of other recommended personal protective equipment based on type and degree of hazard.

ENVIRONMENTAL PROTECTION

SPILLS AND LEAKS

Indicates special precautions for clean-up of spills and leaks and preparation of chemical for disposal.

DISPOSAL METHOD

Tells the EPA classification of the chemical as well as the proper disposal procedure.

STORAGE REQUIREMENTS

Any unusual requirements are given as well as precautions for storage.

ADDITIONAL PRECAUTIONS OR COMMENTS

States or re-emphasizes any special precautions or handling requirements.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Ethyl Corporation makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Ethyl Corporation be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. **NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.**