

MATERIAL SAFETY DATA SHEET



Conforms to 93/112/EC and ISO 11014-1

1. Chemical Product and Company Identification

Product Name: Carbamate-1 CO2 Absorber

Product Number: LS-241

Chemical Names/

Description:

Alkyl ether amine.

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30336

Telephone Numbers

(800) 526-3867
(404) 699-2121

Emergency Numbers

Chemtrec

(800) 424-9300 (U.S. & Canada)
01-703-527-3887 (outside U.S. & Canada)

2. Composition/Information on Ingredients

Component	% Comp.	CAS #	EINECS #	TLV (Units)
3-Methoxypropylamine	95-100	5332-73-0		No Data

3. Hazards Identification

Appearance and Odor

Colorless liquid with ammonia-like odor.

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

FLAMMABLE LIQUID AND VAPOR. CORROSIVE - CAUSES EYE AND SKIN BURNS. HARMFUL OR FATAL IF SWALLOWED. CAUSES RESPIRATORY TRACT IRRITATION AND CAN CAUSE DAMAGE. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING:

REPEATED SKIN CONTACT MAY CAUSE A PERSISTENT IRRITATION OR DERMATITIS. REPEATED INHALATION MAY CAUSE LUNG DAMAGE.

Potential Health Effects

Inhalation

Vapors or mist, especially as generated from heating the material or as from exposure in poorly confined spaces, are irritating to the nose and throat. Prolonged or repeated exposure may result in

lung damage. Prolonged or repeated exposure may result in the absorption of potentially harmful amounts of material.

Ingestion

Causes burning of mouth, throat and stomach with abdominal and chest pain. Aspiration may result during swallowing or vomiting, resulting in lung damage.

Skin

Causes severe irritation with pain.

Eyes

Causes severe irritation and chemical burns of the eye. Severe eye damage may cause blindness.

Signs and Symptoms of Overexposure

Inhalation

Nasal discharge, coughing, and discomfort in nose and throat.

Ingestion

Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse.

Skin

Severe excess redness and swelling with chemical burns, blister formation, and possible tissue destruction.

Eyes

Extreme redness and swelling of the eye. Severe eye damage may cause blindness.

Carcinogenicity

Not listed as a known or anticipated carcinogen by OSHA, IARC, or NTP.

Mutagenicity

No information found.

Reproductive Toxicity

No information found.

Teratogenic Effects

No information found.

Routes of Entry

Inhalation, ingestion, skin contact.

Target Organ Statement

Skin contact may aggravate an existing dermatitis (skin condition). Overexposure to vapor, dust or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

4. First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

DO NOT INDUCE VOMITING. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids

occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point	26.7 C	Flammable Limits	LEL 8%; UEL No Data
Flash Point Method	TCC	Autoignition temperature	No Data

Extinguishing media

Dry powder, foam, carbon dioxide. (Water may be ineffective.)

Protective Equipment

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Hazardous Combustion Products

Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in a limited air supply.

Unusual Fire and Explosion Hazards

Flammable liquid. Vapor forms explosive mixtures with air. Vapor may travel considerable distances to ignition source and flash back.

NFPA Codes: Health 3 Flammability 3 Reactivity 0

6. Accidental Release Measures

Steps to be taken in case material is released or spilled

Eliminate source of ignition. Ventilate area. Cover with absorbent material to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

Waste Disposal Method

Disposal must be made in accordance with applicable federal, state, and local regulations.

Personal Precautions

Wear appropriate protective equipment as specified in section 8.

7. Handling and Storage

Handling

Use spark-proof tools. Material may be at elevated temperatures and/or pressures. Exercise care when opening bleeders and sampling ports. Eye wash and safety shower should be available nearby when this product is handled or used.

Storage

Ground and bond shipping container, transfer line, and receiving container. Keep away from heat, sparks, flame, and other sources of ignition.

Storage Temperature

Room Temperature

Disposal

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

Component: 3-Methoxypropylamine

ACGIH Threshold Limit Value (TLV): No Data

OSHA Permissible Exposure Limit (PEL):

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborn Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Other Control Measures

There is insufficient data in the published literature to assign complete numerical safety ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling.

9. Physical Properties

Boiling point	115.5C (240F)	Evaporation Rate	
Melting point	Not determined	Solubility in water	Soluble
Vapor pressure (mmHg)	6 mmHg at 20C	pH	12.2
Vapor density (Air = 1)	>1	Specific gravity (H2O = 1)	.8725
% volatile by volume	100		

10. Stability and Reactivity

Stability

Stable under ordinary conditions of use and storage.

Conditions to Avoid

Heat, flame, sources of ignition, and incompatibles.

Hazardous Decomposition Products

Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating

aldehydes and ketones may be formed on burning in a limited air supply.

Hazardous Polymerization

Will not occur

Incompatibles

3-Methoxypropylamine:

Strong oxidizing agents and acids.

11. Toxicological Information

Product LD50 Values

Carbamate-1 CO2 Absorber Oral Rat LD50 (mg/kg): 690

Carbamate-1 CO2 Absorber Dermal Rabbit LD50 (mg/kg): 2000

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
3-Methoxypropylamine	No	No	None

12. Ecological Information

3-Methoxypropylamine

No information available.

13. Disposal Considerations

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

14. Transport Information

D.O.T.

Proper Shipping Name: Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy-1-propanamine)

Hazard Class: 8, 3

UN Number: 2734

Packing Group: II

I.A.T.A.

Proper Shipping Name: Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy-1-propanamine)

Hazard Class: 8, 3

UN Number: 2734

Packing Group: II

I.M.O.

Proper Shipping Name: Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy-1-propanamine)

Hazard Class: 8, 3

UN Number: 2734

Packing Group: II

15. Regulatory Information

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
3-Methoxypropylamine	Yes	No	No	Yes	Yes

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

16. Other Information

NFPA Codes: Health 3 Flammability 3 Reactivity 0

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.