

SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Carbamate-1

Product Number: LS-241

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30036
(404) 699-2121
(800) 526-3867
info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)
01-800-099-0731 (Mexico)
400-120-0751 (China)
000-800-100-4086 (India)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
+1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H226 - Flammable Liquids (Category 3)
H302 - Acute Toxicity-Oral (Category 4)
H314 - Skin Corrosion/Irritation (Category 1A)
H317 - Skin Sensitizer (Category 1)
H318 - Serious Eye Damage/Eye Irritation (Category 1)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



DANGER

H226 - Flammable liquid and vapor.
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
P210 - Keep away from heat/sparks/open flames/hot surfaces---no smoking.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do. Continue rinsing.
P302+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.
P310 - Immediately call a POISON CENTER or doctor/physician.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Chemical Names/Description

Alkyl ether amine.

Chemical FormulaC₄H₁₁NO**Component List**

Component	% Comp.	CAS #	EC #
3-Methoxypropylamine	95-100	5332-73-0	226-241-3

SECTION 4 - FIRST AID MEASURES**4.1 Description of 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.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed**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.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES**5.1 Extinguishing media**

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

5.2 Special Hazards Arising from the Substance/Mixture**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.

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 under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

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.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions**

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

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.

6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe 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.

7.2 Conditions for Safe Storage (including any incompatibles)

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

Incompatibles

Strong oxidizing agents and acids.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

ACGIH Threshold Limit Value (TLV): No Data

OSHA Permissible Exposure Limit (PEL): None established

8.2 Exposure Controls

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Colorless liquid	b. Odor	Ammonia-like
c. Odor Threshold	N.A.	d. pH	12.2
e. Melting/Freezing Point (°C)	Not determined	f. Boiling point (°C)	105.5
g. Flash Point (°C)	26.7	h. Evaporation Rate	< 1.0 (H ₂ O = 1)
i. Flammability	Combustible	j. Upper/Lower Flammability or Explosive Limits	LEL 8%; UEL No Data
k. Vapor Pressure	6 mmHg at 20C	l. Vapor Density (Air = 1)	>1
m. Relative Density	.8725	n. Water Solubility	Soluble
o. Partition Coefficient n-octanol/water	Log Kow -0.42	p. Autoignition Temperature (°C)	No Data
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	0.8 cSt @ 20 C
s. Explosive Properties	N.A.	t. Oxidizing Properties	Not an oxidizer

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Strong amine base, reacts violently with acids. Reacts with oxidizers, aldehydes and acid chlorides.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Heat, flame, sources of ignition, and incompatibles.

10.5 Incompatible Materials

Strong oxidizing agents and acids.

10.6 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.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

690

Dermal Rabbit LD50 (mg/kg)

2000

Component Cancer List Status

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

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.

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.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96 hr golden orfe) 146mg/ml	EC50 (48hr, daphnia) 65mg/L	EC50 (72 hr) 31mg/L	EC50 (72hr) 182mg/L
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

12.2 Persistence and Degradability

Not readily biodegradable (57% degradation in 56 days)

12.3 Bioaccumulative Potential

BCF 2.7-3.6

12.4 Mobility in Soil

Log Koc 1.41

12.5 Results of PBT and vPvB Assessment

Not PBT or vPvB

12.6 Other Adverse Effects

None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	2734	2734	2734	2734
14.2 Shipping Name	Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy- 1-propanamine)	Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy- 1-propanamine)	Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy- 1-propanamine)	Amines, Liquid, Corrosive, Flammable, N.O.S. (3-methoxy- 1-propanamine)
14.3 Hazard Class	8, 3	8, 3	8, 3	8, 3
14.4 Packing Group	II	II	II	II
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

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.

SECTION 16 - OTHER INFORMATION

Revisional Updates

4/26/2019 - Updated Section 1.4

5/29/2015 - Updated Sections 2.1 and 3.1

12/3/2013 - Released Version 1.0

NFPA Codes

Health 3 Flammability 3 Reactivity 0

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