

SAFETY DATA SHEET

Preparation Date: 04/20/2015

Revision Date: 07/26/2018

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: M1322
Product Name: MONOETHANOLAMINE, NF

Other means of identification

Synonyms: 1-Amino-2-hydroxyethane
 2-Amino-1-ethanol
 2-Aminoethanol [German]
 2-Aminoetanolo [Italian]
 2-Aminoethanol
 2-Hydroxyethanamine
 2-Hydroxyethylamine
 Aethanolamin [German]
 Aminoethanol
 beta-Aminoethyl alcohol
 beta-Hydroxyethylamine
 Colamine
 Etanolamina [Italian]
 Ethanol, 2-amino-
 Ethanolamine
 Ethylolamine
 Glycinol
 Glycinol (monoethanolamine)
 Kolamin [Czech]
 MEA (alcohol)
 Monoaethanolamin [German]
 Monoethanolamine
 Olamine
 Thiofaco M-50I

CAS #: 141-43-5
RTECS # KJ5775000
Cl#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: To removed CO₂ and H₂S from natural gas and other gases; In the synthesis of surface active agents; in polishes, hair waving solutions, in emulsifiers; as softening agent for hides; dispersing agent for agricultural chemicals; Pharmaceuticals aid (surfactant); corrosion inhibitor; rubber accelerator; gas conditioning agent in production of ammonia; used to neutralize fatty acids to form soaps; cosmetic preparations, soluble cutting oils, used in textile porcessing, furniture, floor and automobile polished, and emulsion paints.

Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248

(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Flammable liquids	Category 4

Label elements

Danger

Hazard statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
Combustible liquid



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Harmful to aquatic life with long lasting effects
Harmful to aquatic life

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

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Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. — No smoking

Precautionary Statements - Response

Specific measures (see .? on this label)

Immediately call a POISON CENTER or doctor/physician

Specific treatment (see .? on this label)

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Ethanolamine	141-43-5	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms Severe skin and eye irritation or burns
Causes eye damage
May cause an allergic skin reaction

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Severe irritation of the upper respiratory tract
Coughing
Choking sensation
Dyspnea (Shortness of breath and difficulty breathing)
Inflammation of the eye is characterized by redness, watering and itching

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use dry chemical, CO2, water spray or "alcohol" foam.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides.

Specific hazards: Combustible material. May be ignited by heat, sparks or flames.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Protect from moisture. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Keep away from combustible material. Keep away from heat and sources of ignition. Use only in well-ventilated areas. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Store in a segregated and approved area.

Incompatible Materials:

Oxidizing agents
Acids
Acetic acid
Acetic anhydride
Acrolein
Acrylic acid
Acrylonitrile
Chlorosulfonic acid
Epichlorohydrin
Hydrochloric acid
Hydrofluoric acid
Mesityl oxide
Nitric acid
Oleum
beta-Propiolactone
Sulfuric acid
Vinyl acetate
Halogens

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Ethanolamine	141-43-5	3 ppm TWA 6 mg/m ³ TWA	3 ppm TWA 8 mg/m ³ TWA 6 ppm STEL 15 mg/m ³ STEL	6 ppm STEL 3 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
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Ethanolamine	141-43-5	3 ppm TWA 7.5 mg/m ³ TWA 6 ppm STEL 15 mg/m ³ STEL	3 ppm TWA 6 ppm STEL	6 ppm STEL	None
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Australia and Mexico

Components	CAS-No.	Australia	Mexico
Ethanolamine	141-43-5	6 ppm STEL 15 mg/m ³ STEL 3 ppm TWA 7.5 mg/m ³ TWA	3 ppm TWA 8 mg/m ³ TWA 6 ppm STEL 15 mg/m ³ STEL

Appropriate engineering controls

Engineering measures to reduce exposure:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles Face-shield
- Skin and body protection:** Long sleeved clothing
Chemical resistant protective suit
Gloves
If working with large quantities:
Chemical resistant apron
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Viscous.	Color: Colorless.
Odor: Ammoniacal. Fish-like. Unpleasant.	Taste No information available.	Formula: C ₂ H ₇ NO
Molecular/Formula weight (g/mole): 61.08 g/mol	Flammability: No information available	Flash point (°C): 86°C
Flashpoint (°C/°F): 86°C/ 186.8°F	Flash Point Tested according to: Closed cup	Autoignition Temperature (°C/°F): 410°C/ 770°F
Lower Explosion Limit (%): 3%	Upper Explosion Limit (%): 23.5%	Melting point/range(°C/°F): 10.3°C/ 50.5°F
Decomposition temperature(°C/°F): No information available	Boiling point/range(°C/°F): 170.8°C/ 339.4°F	Bulk density: No information available
Density (g/cm³): No information available	Specific gravity: 1.018	pH: 10

Vapor pressure @ 20°C (kPa):
0.1

Evaporation rate:
No information available

Vapor density:
2.1

VOC content (g/L):
No information available

Odor threshold (ppm):
2.6

**Partition coefficient
(n-octanol/water):**
-1.31

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Soluble in cold water, hot water,
methanol, acetone.
Partially soluble in diethyl ether.
Solubility in Benzene @ 25 deg. C:
1.4%
Solubility in Ether: 2.1%
Solubility in Carbon Tetrachloride:
0.2%
Solubility in Heptane: <0.1%
Miscible with Chloroform, Glycerin.
Immiscible with fixed oils, solvent
Hexane.
Slightly soluble in Petroleum Ether.

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Reactive with acids

Incompatible with acetic acid, acetic anhydride, acrolein, acrylic acid, acrylonitrile, chlorosulfonic acid, epichlorohydrin, hydrochloric acid, hydrofluoric acid, mesityl oxide, nitric acid, oleum, beta-Propiolactone, sulfuric acid, vinyl acetate, halogens.

Chemical stability

Stability: Hygroscopic. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Moisture sensitive.

Incompatible Materials:

- Oxidizing agents
- Acids
- Acetic acid
- Acetic anhydride
- Acrolein
- Acrylic acid
- Acrylonitrile
- Chlorosulfonic acid
- Epichlorohydrin
- Hydrochloric acid
- Hydrofluoric acid
- Mesityl oxide
- Nitric acid
- Oleum
- beta-Propiolactone
- Sulfuric acid
- Vinyl acetate
- Halogens

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NOx).

Other Information

Corrosivity: Slightly corrosive in the presence of aluminum, of copper

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

Ethanolamine	
CAS-No.	141-43-5

- LD50/oral/rat** = 1720 mg/kg Oral LD50 Rat
- LD50/oral/mouse** = 700 mg/kg
- LD50/dermal/rabbit** = 1 mL/kg Dermal LD50Rabbit; 1000 mg/kg Dermal LD50 Rabbit
- LD50/dermal/rat** = No information available
- LC50/inhalation/rat** = No information available
- LC50/inhalation/mouse** = No information available
- Other LD50 or LC50information** = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 1720 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 700 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 1 ml/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes severe irritation and burns. It can be absorbed through the skin.

Eye Contact: Causes severe eye irritation and possible burns.

Inhalation Causes respiratory tract irritation. May cause shortness of breath and an asthma-like condition. It may also affect behavior/central nervous system (nausea, headache, weakness, dizziness, giddiness, sleepiness, loss of coordination and judgement).

Ingestion May be harmful if swallowed. Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, diarrhea, and possible burns. May cause perforation of the digestive tract. May affect behavior/central nervous system (somnolence, muscle contraction or spasticity and other symptoms similar to inhalation), respiration (dyspnea). It may also affect the liver (acute liver damage).

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Inhalation/Ingestion: It can affect the central and peripheral nervous system (see acute inhalation and ingestion) and may cause liver and/or kidney damage. Skin: Prolonged or repeated skin contact may cause contact dermatitis, a skin allergy.

Sensitization: No information available.

Mutagenic Effects: May affect genetic material

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Ethanolamine	141-43-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data
Developmental Effects: May cause adverse developmental effects based on animal data
Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: Liver. Kidneys. Lungs. Central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Ethanolamine - 141-43-5

Freshwater Algae Data: 15 mg/L EC50 Desmodesmus subspicatus 72 h
Freshwater Fish Species Data: 227 mg/L LC50 Pimephales promelas 96 h flow-through 1 3684 mg/L LC50 Brachydanio rerio 96 h static 1 300 - 1000 mg/L LC50 Lepomis macrochirus 96 h static 1 114 - 196 mg/L LC50 Oncorhynchus mykiss 96 h static 1 200 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1
Water Flea Data: 65 mg/L EC50 Daphnia magna 48 h
Persistence and degradability: 49.3% (by BOD), 97.5% (by TOC)
Bioaccumulative potential: No information available.
Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethanolamine	141-43-5	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Class: No information available
Packing group: III
Emergency Response Guide Number: 153
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: IB3, T4, TP1
Symbol(s): No information available
Description: UN2491, Ethanolamine, 8, III

TDG (Canada)

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No Information available
Description: UN2491, Ethanolamine, 8, III

ADR

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Packing Group: III

Subsidiary Risk: No information available
Description: UN2491, Ethanolamine, 8, III

IMO / IMDG

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No information available
EMS: F-A
Special Provisions: 223
Description: UN2491, Ethanolamine, 8, III

RID

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Description: UN2491, Ethanolamine, 8, III

ICAO

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Description: UN2491, Ethanolamine, 8, III
Special Provisions: A3

IATA

UN-No: UN2491
Proper Shipping Name: Ethanolamine
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 8L
Special Provisions: No information available
Description: UN2491, Ethanolamine, 8, III

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Ethanolamine</i>	141-43-5	PresentACTIVE	Present KE-20493	Present	Present (2)-301	Present	Present	Present 205-483-3

U.S. Regulations

Ethanolamine

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0835
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 173.315

Product code: M1322

Product name:
 MONOETHANOLAMINE, NF

FDA - 21 CFR - Total Food Additives 173.315, 175.105, 176.180, 176.210, 176.300, 178.3120

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Ethanolamine	141-43-5	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Ethanolamine	141-43-5	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Ethanolamine	141-43-5	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Ethanolamine
141-43-5 (100)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 4: H227 Combustible liquid.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Acute toxicity - Dermal - Category 4: H312 Harmful in contact with skin.; Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Specific target organ toxicity - Repeated exposure - Category 1: H372 Causes damage to organs through prolonged or repeated exposure.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

Non-controlled

Components
Ethanolamine

WHMIS 1988
B3,E

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Ethanolamine	1 %

Product code: M1322

Product name:
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Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Ethanolamine	141-43-5	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Ethanolamine	141-43-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Ethanolamine	141-43-5	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Ethanolamine	141-43-5	Acute toxicity - Oral - Acute Tox. 4: H302 Harmful if swallowed. (Minimum classification); Acute toxicity - Dermal - Acute Tox. 4: H312 Harmful in contact with skin. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 4: H332 Harmful if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage.603-030-00-8 Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (C >= 5 %)603-030-00-8

EU - CLP (1272/2008)

R-phrase(s)

R34 - Causes burns.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 1/2 - Keep locked up and out of the reach of children.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Ethanolamine	141-43-5	Xn; R20/21/22 C; R34	10%<=C C; R34 5%<=C<10% Xi; R36/37/38	S1/2 S26 S36/37/39 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

C - Corrosive.

Xn



C



16. OTHER INFORMATION

Preparation Date: 04/20/2015
Revision Date: 07/26/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet