



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 01/04/2012
Date Updated: 10/31/2007
Version 1.90

Section 1 - Product and Company Information

Product Name: Polyethylenimine, 50 wt. % soln. in water. M 1,200 Mw 1,300
Product Number: 482595
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Table with 5 columns: Substance Name, CAS #, SARA 313, EC no, Annex I Index Number. Rows include POLYETHYLENIMINE, 50% SOLUTION IN WATER and POLYETHYLENIMINE, BRANCHED.

Formula
Synonyms

Section 3 - Hazards Identification

HMS Rating: Health: 0, Flammability: 0, Reactivity: 0
NFPA Rating: Health: 0, Flammability: 0, Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.
Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: > 200 °C
Extinguishing Media: Suitable
Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.
Firefighting Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Methods for Cleaning Up: Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
Storage Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.
Personal Protective Equipment Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges.
Hand: Protective gloves.
Eye: Chemical safety goggles.

General Hygiene Measures: Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance Physical State: Liquid

RECEIVED
JAN 10 2012
Safety

Molecular Weight N/A

pH 12
BP/BP Range N/A
MP/MP Range N/A
Freezing Point N/A
Vapor Pressure N/A
Vapor Density N/A
Saturated Vapor Conc. N/A
SG/Density 1.08 g/cm³
Bulk Density N/A
Odor Threshold N/A
Volatile% N/A
VOC Content N/A
Water Content N/A
Solvent Content N/A
Evaporation Rate N/A
Viscosity 18 - 40 Pas
Partition Coefficient N/A
Decomposition Temp. N/A
Flash Point °F N/A
Flash Point °C N/A

Explosion Limits N/A

Flammability N/A
Autoignition Temp > 200 °C
Refractive Index 1.529
Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable

Stable

Materials to Avoid

Strong oxidizing agents

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Nitrogen oxides

Hazardous Polymerization

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

May cause skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

May cause eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Toxicity Data

Oral - Rat: 2800(LD50)

Irritation Data

Skin - :

Remarks: No irritation effect

Eyes - :

Remarks: No irritation effect

Section 12 - Ecological Information

N/A

Acute Ecotoxicity Tests

Test Type

LC50 Fish

Species

Brachydanio rerio

Time:

Value:

96.0 h

7.1 mg/l

Test Type

EC50 Daphnia

Species

Daphnia magna

Time:

Value:

48.0 h

8.84 mg/l

Elimination

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport This substance is considered to be nonhazardous for transport.

IATA

Non-Hazardous for Air Transport Non-hazardous for air transport.

Section 15 - Regulatory Information

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2012 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

RECEIVED

JAN 10 2012

Safety