



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.80

Section 1 - Product and Company Information

Product Name: Egmalin solution, 10% neutral buffered
Product Number: HT501320
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 325 5052
Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Table with columns: Substance Name, CAS #, SARA 313, EC no, Annex 1 Index Number. Rows include FORMALIN, 10% NEUTRAL BUFFERED; WATER; FORMALDEHYDE; METHANOL; DI-SODIUM HYDROGEN PHOSPHATE ANHYDROUS; SODIUM DIHYDROGEN PHOSPHATE MONOHYDRATE.

Section 3 - Hazards Identification

Emergency Overview

Harmful. Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed. May cause sensitization by inhalation and skin contact. Potential cancer hazard. Contains formaldehyde. Readily absorbed through skin. Combustible liquid. Target organ(s): Eyes. Kidneys. Calif. Prop. 65 carcinogen.

HMIS Rating
Health: 3* Flammability: 2 Reactivity: 0

NFPA Rating
Health: 3 Flammability: 2 Reactivity: 0

*additional chronic hazards present.

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 not breathing give artificial respiration. If breathing is difficult, give oxygen.
Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
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

Flash Point: 144 °F 62.2 °C
Explosion Limits: Lower: 7 % Upper: 70 %
Autoignition Temp: N/A
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): Combustible liquid. Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill: Evacuate area.
Procedure(s) of Personal Precaution(s): Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.
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.
Environmental Precaution(s): Do not allow material to enter drains or water courses.

Section 7 - Handling and Storage

Handling User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched. Wash thoroughly after handling.

Storage
Suitable

Keep tightly closed. Keep away from heat, sparks, and open flame.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance

Physical State

Liquid

Molecular Weight: N/A

<u>Property</u>	<u>Value</u>	<u>At Temperature or Pressure</u>
pH	N/A	
BP/BP Range	100 °C	760 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	40 mmHg	39 °C
Vapor Density	1 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.08 g/cm ³	
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	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	144 °F	Method: closed cup
Flash Point °C	62.2 °C	Method: closed cup
Explosion Limits	Lower: 7 % Upper: 70 %	
Flammability	N/A	
Autoignition Temp	N/A	

Solubility

Solubility in Water: Miscible.

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable

Stable.

Materials to Avoid

Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Amines, Peroxides, Incompatible with: aniline, phenol, isocyanates, anhydrides.

Hazardous Decomposition Products

Hazardous Decomposition Products

Nature of decomposition products not known.

Hazardous Polymerization

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

May cause skin irritation.

Skin Absorption

Harmful if absorbed through skin. Readily absorbed through skin.

Eye Contact

May cause eye irritation.

Inhalation

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

Ingestion

Harmful if swallowed.

Sensitization

Respiratory

May cause allergic respiratory reaction.

Skin

May cause allergic skin reaction.

Target Organ(s) or System(s)

Eyes. Kidneys. Liver. Heart. Central nervous system.

Signs and Symptoms of Exposure

Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Ingestion can cause: Nausea, headache, and vomiting. Gastrointestinal disturbances. Dizziness. Weakness. Confusion. Drowsiness. Unconsciousness. May cause convulsions. Coughing, chest pains, difficulty in breathing.

RTECS Number: N/A

Chronic Exposure - Carcinogen

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. OSHA carcinogen.

OSHA Carcinogen List

Rating

Potential cancer hazard.

Section 12 - Ecological Information

Acute Ecotoxicity Tests

Test Type
LC50 Fish
Species
Onchorhynchus mykiss (Rainbow trout)
Time: **Value:**
96.0 h 19,000 mg/l

Test Type
EC50 Daphnia
Species
Daphnia magna
Time: **Value:**
48.0 h 24,500 mg/l

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned 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: Combustible liquid, n.o.s.
UN#: NA1993
Class: COMBUSTIBLE LIQUID
Packing Group: Packing Group III
Hazard Label: None
PIH: Not PIH

IATA

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

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xn
Indication of Danger
Harmful.
Risk Statements **R:** 20/21/22 40 43
Harmful by inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect. May cause sensitization by skin contact.
Safety Statements **S:** 36/37
Wear suitable protective clothing and gloves.

US Classification and Label Text

Indication of Danger
Harmful.
Risk Statements
Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed. May cause sensitization by inhalation and skin contact.
Safety Statements
Do not breathe vapor. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
US Statements
Potential cancer hazard. Contains formaldehyde. Readily absorbed through skin. Combustible liquid. Target organ(s): Eyes. Kidneys. Calif. Prop. 65 carcinogen.

United States Regulatory Information

SARA Listed: Yes

Notes: This product is or contains a component that is subject to SARA313 reporting requirements.

OSHA Remarks

OSHA-regulated carcinogen. See CFR title 29 part 1910.

United States - State Regulatory Information

California Prop - 65

This product is or contains chemical(s) known to the state of California to cause cancer.

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. Sigma-Aldrich 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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.