



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 04/04/2006
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Version 1,20

Section 1 - Product and Company Information

Product Name	Ethylmagnesium chloride, 2.0M solution in diethyl ether		
Product Number	300330		
Brand	Aldrich Chemical		
Company	Sigma-Aldrich		
Street Address	3050 Spruce Street		
City, State, Zip, Country	SAINT LOUIS, MO 63103 US		
Technical Phone:	800-325-5832	Emergency Phone:	314-776-6555
Fax:	800-325-5052		

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
ETHYLMAGNESIUM CHLORIDE, 2.0M SOLUTION IN DIETHYL ETHER	None	No		
Formula	C2H5ClMg			
Synonyms				

Section 3 - Hazards Identification

Emergency Overview
Flammable (USA) Extremely Flammable (EU). Corrosive.
Reacts violently with water. Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Limited evidence of a carcinogenic effect.
Possible mutagen.

HMS Rating Special Hazard(s) : Water reactive

NFPA Rating Special Hazard(s) : Water reactive

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

Section 4 - First Aid Measures

Immediate Treatment - Work Site
In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

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.

Eye Exposure
Assure adequate flushing of the eyes by separating the eyelids with fingers.

Section 5 - Fire Fighting Measures

Explosion Hazards
Vapor may travel considerable distance to source of ignition and flash back.
Container explosion may occur under fire conditions.

Conditions of Flammability
Reacts with water to liberate flammable and/or explosive gas.

Flash Point: -40 °F -40 °C

Autoignition Temp: N/A

Extinguishing Media
Suitable
Dry chemical powder.
Unsuitable
Do not use water.

Firefighting Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions.

Exposure Hazard(s)
Material
Corrosive. Toxic.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill
Evacuate area. Shut off all sources of ignition.

Procedure(s) of Personal Precaution(s)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
User Exposure
Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage
Suitable
Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.
Incompatible Materials
Do not allow contact with water.

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Safety and Environmental
Health

Section 8 - Exposure Controls / PPE

Engineering Controls

Safely shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment

Other

Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

General Hygiene Measures

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Molecular Weight: 88.83 AMU

pH N/A

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 0.823 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 N/A

Partition Coefficient N/A

Decomposition Temp. N/A

Flash Point °F -40 °F

Flash Point °C -40 °C

Method: closed cup

Method: closed cup

Explosion Limits N/A

Flammability N/A

Autoignition Temp N/A

Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability

Materials to Avoid

Acids, Alcohols, Reacts violently with water.

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Hydrogen chloride gas.

Section 11 - Toxicological Information

Route of Exposure

Multiple Routes

Harmful if swallowed, inhaled, or absorbed through skin.

Target Organ(s) or System(s)

Central nervous system.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Under an inert atmosphere, cautiously add the material to dry butanol in an appropriate solvent. The chemical reaction may be vigorous and/or exothermic. Provisions must be made for the venting of large volumes of highly flammable hydrogen and/or hydrocarbon gases. Neutralize the solution with aqueous acid. Filter off any solid residues for disposal as hazardous waste. Burn the liquid portion 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: Organometallic substance, liquid, water-reactive, flammable

UN#: 3399

Class: 4.3

Packing Group: Packing Group I

Hazard Label: Dangerous when wet

Hazard Label: Flammable liquid

PIH: Not PIH

IATA

Proper Shipping Name: Organometallic substance, liquid, water-reactive, flammable

IATA UN Number: 3399

Hazard Class: 4.3

Packing Group: I

Not Allowed - Aircraft: FORBIDDEN

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: F+ C

Indication of Danger

Extremely Flammable. Corrosive.

Risk Statements R: 12 14 20/21/22 34 40

Extremely flammable. Reacts violently with water. Harmful by inhalation. In contact with skin and if swallowed. Causes burns. Limited evidence of a carcinogenic effect.

Safety Statements S: 16 26 33 36/37/39 45

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Classification and Label Text**Indication of Danger**

Flammable (USA) Extremely Flammable (EU). Corrosive.

Risk Statements

Reacts violently with water. Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Limited evidence of a carcinogenic effect.

Safety Statements

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements

Possible mutagen.

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. 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 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

