

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: Barium Magnesium Aluminate

Product Code: BA-MGALO-01-C

CAS Number: 63774-55-0

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351
Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW -

CAUTION:

White Solid. Harmful if swallowed. Harmful if inhaled. May cause skin, eye and respiratory tract irritation. Avoid breathing dust. Avoid contact with skin and eyes. Hygroscopic.

Principle Routes of Exposure: Inhalation, Eye contact, Skin contact

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation. Avoid contact with eyes.

Skin Contact: May cause irritation. Avoid contact with skin.

Inhalation: Harmful by inhalation. Dust may be irritating to respiratory tract. This product contains a micropowder containing particles in the range of 0.001 to 2.0 microns.

These particles may become airborne and result in exposure via inhalation. See also Section 8.

Ingestion: Harmful if swallowed.

Carcinogenic Effects: Does not contain any substances listed by IARC (International Agency for Research

on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference for Governmental Industrial Hygienists) or EU (European Union). See also Section 11.

Target Organ Effects: Lungs, Eyes, Skin

Medical Conditions Aggravated

by Exposure:

Asthma, Respiratory disorder

Potential Environmental Effects: Unknown. Avoid release into the environment.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name Barium Magnesium Aluminate

CAS Number 63774-55-0

EINECS Number 264-456-4

Weight % 100

EU Classification Xn;R20/22

SECTION 4. FIRST AID MEASURES

Skin Contact: Wash thoroughly with soap and water. Seek medical attention if redness, swelling, itching, or burning occurs.

Eye Contact: Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur.

Inhalation: If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.

Ingestion: Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

Notes to Physician: Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Flash Point: No data available

Explosion Limits in Air - Upper (%): No data available

Explosion Limits in Air - Lower (%): No data available

OSHA Flammability Classification: N/A

Autoignition Temperature: No data available

Method: No data available

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Protective Equipment for Firefighters: Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus.

Specific Hazards: Keep dry. Do not expose to water or moisture. May absorb carbon dioxide and ammonia from air.

Hazardous Decomposition and/or Combustion

Products:

None known.

Risk of Dust Explosion: N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid dust formation. Remove all sources of ignition. Ensure adequate ventilation.

Use personal protective equipment. See also Section 8.

Methods for Cleaning Up: Clean up promptly by vacuum. Use of a vacuum with high efficiency particulate air

(HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Pick up and transfer to properly labelled containers. See Section 13.

Environmental Precautions: Do not allow material to contaminate groundwater system. Local authorities should

be advised if significant spillages cannot be contained. See also Section 13.

SECTION 7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharge. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts.

Storage: Hygroscopic material. Will absorb water readily from atmosphere. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep away from heat and sources of ignition. Do not store together with strong oxidizing agents. Keep at ambient temperatures.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Barium, Soluble compounds as
BA, CAS RN 63774-55-0:

Austria - MAK: 0.5 mg/m³, TWA

2.0 mg/m³, STEL

Belgium - OEL: 0.5 mg/m³, TWA

Finland: 0.5 mg/m³, TWA

France - INRS: 0.5 mg/m³, TWA/VME

Germany - TRGS 900: 0.5 mg/m³

Ireland: 0.5 mg/m³, TWA

Italy - OEL: 0.5 mg/m³, TWA

Spain: 0.5 mg/m³, TWA

United Kingdom - WEL: 0.5 mg/m³, TWA

US ACGIH - TLV: 0.5 mg/m³, TWA

US OSHA - PEL: 0.5 mg/m³, TWA

INRS: Institut National de Recherche et de Securite (National Institute of Research and Security)

MAC: Maximaal Aanvaarde Concentraties (Maximum allowed concentration)

MAK: Maximale Arbeitsplatzkonzentration (Maximum Workplace Concentration)

OEL: Occupational Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TRGS: Technische Regeln für Gefahrstoffe (Technical Rule for Hazardous Materials)

TWA: Time Weighted Average

US ACGIH: United States American Conference of Governmental Industrial Hygienists

US OSHA: United States Occupational Safety and Health Administration

VME: Valeur Moyenne d'Exposition (Average Level of Exposure)

WEL: Workplace Exposure Limit

ENGINEERING CONTROLS Ensure adequate ventilation to maintain exposures below occupational limits.

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Approved respirator may be necessary if local exhaust ventilation is not adequate.

Hand Protection: Wear as appropriate. Impervious gloves. Neoprene gloves. Nitrile rubber gloves. Rubber gloves. PVC or other plastic material gloves.

Eye Protection: Wear eye/face protection. Safety glasses with side-shields. Goggles.

Skin and Body Protection: Wear suitable protective clothing. No special protective equipment required.

Other: Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White Solid

Odor: No data available

pH: No data available

Vapor Pressure: No data available

Boiling Point/Range: No data available

Melting Point/Range: No data available

Water Solubility: Insoluble

Density: 3.8 g/cc

Specific Gravity: No data available

Evaporation Rate: No data available

Viscosity: No data available

Partition Coefficient (n-octanol/water): No data available

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Hazardous polymerization does not occur.

Mechanical Sensitivity (shock): Not sensitive to mechanical impact.

Conditions to Avoid: None reported.

Hazardous Decomposition and/or

Combustion Products:

None known.

Static Discharge Effects: Take precautionary measures against static discharges. Avoid formation of dust and

aerosols. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral LD50: No data available.

Inhalation LC50: No data available.

Dermal LD50: No data available.

Eye Irritation: No data available.

Skin Irritation: No data available.

SUBCHRONIC TOXICITY

No data available.

CHRONIC TOXICITY

Carcinogenic Effects: Does not contain any substances listed by IARC (International Agency for Research on Cancer),

NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American

Conference for Governmental Industrial Hygienists) or EU (European Union).

Mutagenic Effects: No data is available on the product itself.

Reproductive Toxicity: No data is available on the product itself.

Sensitizing Effects: No data available.

Synergistic Materials: None reasonably foreseeable.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No data available

ENVIRONMENTAL FATE

Mobility: No data available.

Bioaccumulation: No data available.

Persistence / Degradability: No data available.

Distribution to Environmental

Compartments:

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 2 of this MSDS.

Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate.

State/provincial and local regulations may be different from federal regulations.

RCRA Classification (40 CFR 261): RCRA Class D005.

Unused and Uncontaminated Product: Product, as supplied, should be disposed of in accordance with the regulations

issued by the appropriate federal, state and local authorities. Same consideration should be given to containers and packaging.

SECTION 14. TRANSPORT INFORMATION

UN Number: 1564

UN Proper Shipping Name: Barium compounds, n.o.s. (Barium Magnesium Aluminate)

UN Shipping Class: 6.1

UN Packing Group: III

IMDG (International Maritime Organization's Dangerous Goods Code):

Use UN classification listed above.

IATA (International Air Transport Association):

Use UN classification listed above.

SECTION 15. REGULATORY INFORMATION

Hazard Classification

United States - OSHA (29 CFR 1910.1200): Hazardous.

Mexico - NOM-018-STPS-2000: Refer to HMIS Rating in Section 16.

Canada - WHMIS Classification (CPR, SOR/88-66): No data available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and

the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

All components of this product are listed on or exempt from the following inventories:

NO - Australian Inventory of Chemical Substances (AICS)

NO - Canadian Domestic Substances List (DSL)

YES - Chinese Inventory

YES - European Inventory of Existing Commercial Chemical Substances (EINECS)

NO - Japanese Inventory of Existing and New Chemical Substances (ENCS)

NO - Korean Existing Chemicals List (KECL)

YES - New Zealand Hazardous Substances and New Organisms Act (HSNO)

YES - Philippine Inventory of Chemicals and Chemical Substances (PICCS)

YES - United States Toxic Substances Control Act (TSCA) Inventory

U.S. Federal Regulations

TSCA 12(b) Export Notification: This product does not contain any components that are subject to TSCA 12(b)

Export Notification.

Clean Air Act Amendments of 1990 (CAA, Section 112, 40 CFR 82): This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor.

Clean Water Act (CWA, 40 CFR 116) Priority Pollutants: This product does not contain any listed Priority Pollutants.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302): This product does not contain any listed Hazardous Substances.

Superfund Amendments and Reauthorization Act, Title III (SARA):

SARA Section 302 (40 CFR 355) Extremely Hazardous Substances: No components are listed as extremely hazardous chemicals under SARA Section 302.

SARA Sections 311/312 (40 CFR 370) Hazard Category: ACUTE/IMMEDIATE HEALTH HAZARD.

SARA Section 313 (40 CFR 372) Toxics Release Inventory: This material contains the following chemicals on

the List of Toxic Chemicals:

Chemical Name SARA Section 313 Emission Reporting

Barium Magnesium Aluminate Listed

Pharmaceutical Information: Not permitted

U.S. State Regulations

California Proposition 65: This product does not contain any components listed on California Proposition 65.

US Coalition of NorthEastern Governors (CONEG) Metals List: No data available.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements 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 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.