

SAFETY DATA SHEET

Date Accessed: 25/08/2023

Date Revised: 07/01/2023

SECTION 1. IDENTIFICATION

Product Name: Barium Metaphosphate

CAS #: 13762-83-9

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

SECTION 2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR

1910.1200)

Acute oral toxicity Category 4

Acute Inhalation Toxicity - Dusts and Mists Category 4

Label Elements

Signal Word

Warning

Hazard Statements

Harmful if swallowed or if inhaled

Precautionary Statements Prevention Avoid breathing dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell IngestionIF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Disposal Dispose of contents/container to an approved waste disposal plant Hazards not otherwise classified (HNOC) None identified Component Barium dimetaphosphate CAS-No 13762-83-9 Weight % <=100

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Getmedical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritationpersists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attentionif

symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attentionif symptoms occur. Most important symptoms and effects

None reasonably foreseeable.

Notes to Physician Treat symptomatically

SECTION 4. FIRST AID MEASURES

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or

equivalent) andfull

protective gear.

NFPAHealth - 2

Flammability - 0

Instability - 0

Physical hazards -

SECTION 5. FIREFIGHTING MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required.

Avoiddust

formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional

Ecological

Information.

Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closedcontainers for disposal.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Donot get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 7. HANDLING AND STORAGE

Exposure Guidelines This product does not contain any hazardous materials with occupational exposurelimits established by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

EuropeanStandardEN166.

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or

EuropeanStandardEN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if

exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Physical State Solid

Appearance White

Odor Odorless

Odor Threshold No information available

pH No information available

Melting Point/Range 1560 °C / 2840 °F

Boiling Point/Range No information available

Flash Point No information available Evaporation Rate Not applicable

Flammability (solid,gas) No information available

Flammability or explosive limits

Upper No data available

Lower No data available

Vapor Pressure No information available

Vapor Density Not applicable

Specific Gravity No information available

Solubility No information available

Partition coefficient; n-octanol/water No data available

Autoignition Temperature No information available

Decomposition Temperature No information available

Viscosity Not applicable

Molecular Formula Ba(PO3)2

Molecular Weight 295.25

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products None under normal use conditions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

SECTION 10. STABILITY AND REACTIVITY

Acute Toxicity

Product Information

Component Information

Toxicologically Synergistic

Products - No information available

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

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as

acarcinogen

Mutagenic Effects No information available

Reproductive Effects No information available. Developmental Effects No information available.

Teratogenicity No information available. STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and

delayed

No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

SECTION 11. TOXICOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

SECTION 12. ECOLOGICAL INFORMATION

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is

classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

SECTION 13. DISPOSAL CONSIDERATIONS

DOT

UN-No UN1564

Proper Shipping Name Barium compound, n.o.s. Technical Name (Barium metaphosphate)

Hazard Class 6.1

Packing Group III

TDG

UN-No UN1564

Proper Shipping Name Barium compound, n.o.s. Hazard Class 6.1

Packing Group III

IATA

UN-No UN1564

Proper Shipping Name Barium compound, n.o.s. Hazard Class 6.1

Packing Group III

IMDG/IMO

UN-No UN1564

Proper Shipping Name Barium compound, n.o.s. Hazard Class 6.1

Packing Group III

SECTION 14. TRANSPORT INFORMATION

TSCA 12(b) - Notices of Export Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of HomelandSecurity

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

SECTION 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.