



# TRIANGLE CHEMICAL COMPANY

44 Hillcrest Dr., Chickasha, OK 73018, Phone 405-224-4933

## Material Safety Data Sheet

### Magox Premium

CAS # 1309-48-4

Chemical family: inorganic oxide

A very reactive chemical grade magnesium oxide

### Ingredients/Composition

Magnesium oxide 100% IARC/NTP/OSHA no

Nuisance particulate OSHA PEL TWA 15 mg/m<sup>3</sup>; respirable: 5mg/m<sup>3</sup>. ACGIH TLV: TWA total dust: 10 mg/m<sup>3</sup>; respirable dust: 5mg/m<sup>3</sup>.

LOI (1000 C) 4.00 includes 0.05% SO<sub>3</sub> and 0.35% Cl

SiO<sub>2</sub> 0.35

Fe<sub>2</sub>O<sub>3</sub> 0.15

Al<sub>2</sub>O<sub>3</sub> 0.10

CaO 0.80

MgO 98.20 min 97.00

The oxides shown in the typical chemical analysis do not exist in the magnesium oxide as free, uncombined oxides, but are combined in complex mineralogical phases.

### Hazards Identification

Health Hazard 1-slight Flammability Hazard 0-minimal Reactivity Hazard 1-slight

Personal Protection B –glasses, gloves

Emergency overview- white free flowing powder, will react with water generating heat. Not a fire or spill hazard. Low toxicity, dust is classified as a nuisance particulate not otherwise regulated.

Target organs: chronic overexposure may cause lung damage. Primary routes of entry: inhalation. Acute effects: excessive exposure to airborne particulate may cause eye and upper respiratory irritation. Chronic effects: product dust is classified as a nuisance particulate not otherwise regulated, as specified by ACGIH and OSHA. The excessive long-term inhalation of mineral dusts may contribute to the development of industrial bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease. Eye contact: particulate is a physical eye irritant. Skin contact: prolonged contact may cause slight skin irritation. Inhalation: chronic overexposure by inhalation of airborne particulate may irritate upper respiratory system as well as the throat. Ingestion: an unlikely route of exposure, if ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea.

## **First Aid Measures**

Eye contact: flush eyes, including under the eyelids, with large amounts of water, if irritation persists, seek medical attention. Skin contact: wash affected areas with mild soap and water. Inhalation: remove victim to fresh air, if not breathing five artificial respiration, give immediate medical attention. Ingestion: is unlikely route of exposure if ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk, never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated in to the lungs, seek immediate medical attention.

## **Fire Fighting Measures**

NFPA code: flammability 0 Health 0 Reactivity 1 Special 0

Flash point: not combustible

Unusual fire hazard/extinguishing media: product will react with water generating heat. If contact with water is unavoidable, use sufficient water to dissipate any excessive heat buildup. Hazardous decomposition products: none. Firefighting instructions: firefighters should wear NIOSH approved positive pressure self contained breathing apparatus and full protective clothing when appropriate.

## **Accidental Release Measures**

Spill procedures: carefully clean up and place material in to a suitable container, being careful to avoid creating excessive dust from dried product. If conditions warrant, clean up personnel should wear approved respiratory protection, gloves and goggles to prevent irritation from contact and /or inhalation.

## **Handling and Storage**

Storage: store in a dry protected storage, do not allow water to get inside containers; reaction with water will cause product to swell, generate heat and burst its container. Exposed, unprotected magnesium oxide will absorb moisture and carbon dioxide from the air. Minimize dust generation during material handling and transfer.

## **Exposure Controls and Personal Protection**

Engineering controls: provide sufficient ventilation, in both volume and air flow patterns to control mist/dust concentrations below allowable exposure limits. Personal protective equipment: the use of eye protection, gloves and long sleeve clothing is recommended. Respiration protection: for dust concentrations above allowable nuisance particulates limit provide employee with NIOSH/OSHA approved particulate dust respirator in accordance with requirements of 29 CFR 1910.134.

## **Physical and Chemical Properties**

Appearance: white, free flowing powder; odorless.

Boiling point: not applicable

Melting point: >3800 F > 2100 C

Water solubility: slight < 1%

pH 10% aqueous slurry: 10-11

Specific gravity: 3.56 g/cc

Bulk density: 24 lbs/ cu. Ft.

% Volatile by volume: 0

Evaporation rate: not applicable

### **Stability and Reactivity**

Hazardous polymerization: will not occur

Chemical incompatibilities: magnesium oxide is soluble in aqueous acids generating heat and steam, violent reaction or ignition with interhalogens (e.g., bromine pentafluoride, chlorine trifluoride).

Incandescent reaction with phosphorus pentachloride. Will react with water generating some heat.

Hazardous decomposition products: none

### **Toxicological Information**

Magnesium oxide toxic and hazard review low toxicity- a nutrient and/or dietary supplement food additive.

THERAP CAT: antacid. (Sax) an experiment tumorigen. Inhalation of fume (not MgO dust particular)

produced upon decomposition of magnesium compounds can produce a febrile reaction and

leukocytosis in humans. Toxicity data: ihl-hmn TCLo:400 mg/m<sup>3</sup>; itr-ham TDLo:480

mg/kg/30w-1: ETA

### **Ecological Information**

Ecotoxicological/Chemical fate information:

No data available on any adverse effects of this material on the environment.

### **Disposal Information**

Waste management/disposal: this product does not exhibit any characteristics of a hazardous waste. The product is suitable for landfill disposal. Follow all applicable federal, state and local regulations for safe disposal.

### **Transport Information**

US Department of transportation: not regulated by DOT as a hazardous material. No hazard class no label or placard required, no UN or NA number assigned. Canadian TDG hazard class and pin: not regulated

### **Regulatory Information**

Product or components of mixture regulated under following lists:

SARA TITLE III:

Section 302: no (extremely hazardous substances)

Section 304: no (emergency release)

Section 311: yes acute effects- msds

Section 312: yes community right to know, inventory and location, Tier I/II

Section 313: no toxic chemicals, toxic chemical release reporting, Form R

TSCA: all substances in this product are listed in the chemical substance inventory of the toxic substance control act.

CERCLA hazardous substance list, RQ: no