

MATERIAL SAFETY DATA SHEET

PREMIER CHEMICALS

MSDS ID: 2404

Phone: PREMIER CHEMICALS: 1-800-227-4287
CHEMTRAC, 24-Hr Emergency Assistance: 1-800-424-9300

Date Prepared: 3/05
This Revision: 01/07

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material/Product Name(s): Dead-Burned MAGNESITE DB90 & DB 90 BMF

CAS Number: 1309-48-4

Chemical family: Inorganic Oxide

General Use: A sized Dead-burned magnesite (magnesium oxide).

Manufacturer/Supplier: PREMIER CHEMICALS, LLC

300 Barr Harbor
Suite 250
West Conshohocken, PA 19428-2998

SECTION 2. INGREDIENTS/COMPOSITION

Ingredient name:	CAS Number:	Percent:	IARC/NTP/OSHA:	Exposure Limits:
Dead-burned Magnesite	1309-48-4	100	No	Nuisance Particulate OSHA PEL:TWA 15mg/m ³ ; respirable: 5mg/m ³ . ACGIH TLV:TWA Total dust: 10mg/m ³ ; respirable dust: 5mg/m ³ .
Quartz (SiO ₂)	14808-60-7	0-1	Yes	ACGIH TLV:TWA respirable quartz 0.05mg/m ³ .

Quartz, a polymorph of crystalline silica, is classified by IARC as "Known Human Carcinogen - Group 1". NTP lists respirable crystalline silica amongst substances which may "reasonably be anticipated to be carcinogens".

Typical Chemical Analysis, Wt. %.

SiO ₂	3.4
Fe ₂ O ₃	1.5
Al ₂ O ₃	1.0
CaO	1.9
MgO	92.2

The oxides shown in the typical chemical analysis do not exist in the magnesium oxide as free, uncombined oxides, but are combined mineralogically as calcium-magnesium silicates, aluminates and ferrites.

SECTION 3. HAZARDS IDENTIFICATION

HMIS

HEALTH HAZARD	1 - SLIGHT
FLAMMABILITY HAZARD	0 - MINIMAL
REACTIVITY HAZARD	0 - MINIMAL
PERSONAL PROTECTION	B - Glasses, Gloves

EMERGENCY OVERVIEW:

A brownish, free flowing granular material. 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 route(s) of entry: Inhalation

Acute effects: Particulate may cause eye and upper respiratory irritation.

Page 1 ---

HAZARD IDENTIFICATION continues on page 2

--- Page 1

MATERIAL SAFETY DATA SHEET

PREMIER CHEMICALS

Phone: PREMIER CHEMICALS: 1-800-227-4287
CHEMTRAC, 24-Hr Emergency Assistance: 1-800-424-9300

MSDS ID: 2404

Date Prepared: 3/05

This Revision: 01/07

HAZARD IDENTIFICATION continued from page 1

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.

Signs & symptoms of overexposure:

Eye contact: Particulate is a physical eye irritant.

Skin contact: Low toxicity by skin contact.

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.

SECTION 4. 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, give artificial respiration. Get immediate medical attention.

Ingestion: Ingestion is an 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 into the lungs. Seek immediate medical attention.

SECTION 5. FIRE FIGHTING MEASURES

NFPA code: Flammability: 0, Health: 0, Reactivity: 0, Special: 0.

Flash point: Not Combustible

Unusual Fire Hazard/ Extinguishing Media: None

Hazardous Decomposition Products: None

Firefighting instructions: Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill procedures: Carefully, cleanup and place material into 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.

SECTION 7. HANDLING AND STORAGE

Storage: Store in dry, protected storage. Product is stable under normal conditions of dry storage. Minimize dust generation during material handling and transfer.

SECTION 8. 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: Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910.134 for level of exposure incurred.

Hygienic Practices: Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating or drinking.

MATERIAL SAFETY DATA SHEET

PREMIER CHEMICALS

Phone: PREMIER CHEMICALS: 1-800-227-4287
CHEMTRAC, 24-Hr Emergency Assistance: 1-800-424-9300

MSDS ID: 2404

Date Prepared: 3/05

This Revision: 01/07

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A brownish, mixture of free-flowing granular particles; odorless.

Boiling Point: Not Applicable

Bulk Density (g/cc): 3.25

Melting Point: >3800°F (>2100°C)

Bulk Weight(lbs/cu.ft): 160 -165

Water Solubility: Slight <1%

% Volatile by volume: 0

pH (10% aqueous slurry): 10-11

Evaporation rate: Not Applicable

SECTION 10. 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. Water will react with magnesium oxide producing magnesium hydroxide and heat.

Hazardous Decomposition Products: Heat and Steam

SECTION 11. TOXICOLOGICAL INFORMATION

Magnesium Oxide CAS#1309-48-4 Toxic and Hazard Review: low toxicity - a nutrient

and/or dietary supplement food additive. THERAP CAT: antacid. (Sax) an experimental tumorigen. Inhalation of fume (not MgO dust particulate) produced upon decomposition of magnesium compounds can produce a febrile reaction and leukocytosis in humans. TOXICITY DATA: ihl-hmn TClO:400 mg/m³; itr-ham TDLo:480 mg/kg/30w-I:ETA.

Quartz CAS# 14808-60-7. Toxic and Hazard Review (Sax): Experimental poison by intratracheal and intravenous routes. An experimental carcinogen, tumorigen, and neoplastigen. Human systemic effects by inhalation: Cough dyspnea, liver effects. Listed by IARC as a "known human carcinogen" Group 1. Listed by NTP.

TOXICITY DATA: no LD₅₀ in RTECS. ihl-hmn: TClO 16 mppcf/8H/17.9Y-I:PUL;

ihl:hmn LCLo:300µg/m³/10Y-I;LVR; Other species toxicity data (NIOSH RTECS) inv-rat LDLo: 90 mg/kg; itr-rat LDLo: 20 mg/kg; ivn-mus LDLo: 40 mg/kg; ivn-mus 20 mg/kg.

Balance of Ingredients: No LD₅₀ or LC₅₀ found for oral, dermal, or inhalation routes of administration.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicological/Chemical Fate Information:

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

SECTION 13. DISPOSAL INFORMATION

Waste Management/Disposal: This product, as manufactured does not exhibit any characteristics of a hazardous waste, and is suitable for landfill disposal. Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material. If, however, the product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary determine proper method for disposal. Waste characterization and disposal/treatment methods should be determined by a qualified environmental professional in accordance with applicable federal, state and local regulations.

SECTION 14. 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 & PIN: Not regulated

Page 3 ---

MSDS continues on page 4

--- Page 3

MATERIAL SAFETY DATA SHEET

PREMIER CHEMICALS

MSDS ID: 2404

Phone: PREMIER CHEMICALS: 1-800-227-4287
CHEMTRAC, 24-Hr Emergency Assistance: 1-800-424-9300

Date Prepared: 3/05
This Revision: 01/07

SECTION 15. 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 (*Community Right-to-Know*, MSDSs or List of Chemicals)

Section 312: Yes (*Community Right-to-Know*, Inventories & Locations, (Tier I/II))

Section 313: No (Toxic Chemicals, Toxic Chemical Release Reporting, Form R)

CERCLA Hazardous Substance List, RQ: No

TSCA: Yes. All substances contained in this product are listed in TSCA inventory.

California Proposition 65: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive toxins.

SECTION 16. OTHER INFORMATION

ACRONYMS AND REFERENCES USED IN PREPARATION OF MSDS':

ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation & Liability Act
EPCRA: Emergency Planning and Community Right-to-Know Act of 1986
HMIS™: Hazardous Materials Identification System (National Paint & Coatings Association)
IARC: International Agency for Research on Cancer
MSHA: Mine Safety and Health Administration
NIOSH: National Institute for Occupational Safety and Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit (OSHA)
SARA: Superfund Amendments and Reauthorization Act
TITLE III: Emergency Planning and Community Right To Know Act
Section 302: Extremely Hazardous Substances
Section 304: Emergency Release
Section 311: *Community Right-to-Know*, MSDSs or List of Chemicals
Section 312: *Community Right-to-Know*, Inventories & ocations, (Tier I/II)
Section 313: Toxic Chemicals, Toxic Chemical Release Reporting, Form R
TLV: Threshold Limit Values (ACGIH)
TWA: Time Weighted Average

REFERENCES:

Sax, N. Irving: Dangerous Properties of Industrial Materials, Ninth Edition, Van Nostrand Reinhold Co., Inc., 1996.
Kirk, R. and Othmer, D., Encyclopedia of Chemical Technology, Third Edition, Wiley-Interscience, New York, NY 1982.
Clansky, K.B., Suspect Chemicals Sourcebook, 1992-2 Edition, Roytech Publications, Bethesda, Maryland.
Sax, N.Irving and Lewis,R.J. Hawley's Condensed Chemical Dictionary, Eleventh Ed., Van Nostrand Reinhold Co.,Inc.,
Manufacturers/Suppliers, Material Safety Data Sheets on Raw Materials Used
American National Standard for Hazardous Industrial Chemicals - Material Safety Data Sheets - Preparation, American National Standards Institute, Inc.11 West 42nd St, New York, NY 10036.

Prepared/Revised by: Mark A. Shand March 30, 2005

Although reasonable care has been taken in the preparation of the information contained herein, PREMIER CHEMICALS extends no warranties, makes no representation and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.