

## Material Safety Data Sheet

Printing date 04/28/2015

Reviewed on 04/28/2015

### 1 Identification

- **Product identifier**
- **Trade name: Cal Mag Plus**
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Manufacturer/Supplier:**  
Magnesita Refractories Company  
425 S. Salem Church Road  
York, PA 17408
- **Information department:** Compliance Department: 717-793-5463
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Magnesita: 717-793-5463

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- **Hazard pictograms** GHS05, GHS08
- **Signal word** Danger
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye damage.  
May cause cancer.
- **Precautionary statements**  
If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Wear protective gloves.  
Wear eye protection / face protection.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a poison center/doctor.  
Specific treatment (see on this label).  
IF exposed or concerned: Get medical advice/attention.  
Store locked up.

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Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Carcinogenicity:**

The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Group 1 Carcinogen "sufficient evidence of carcinogenicity in humans".

### 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

16389-88-1	dolomite	25-50%
1344-95-2	Calcium Silicate	10-25%
1302-76-7	Aluminum Silicate	10-25%
7778-18-9	calcium sulphate, natural	10-25%
1309-37-1	Iron Oxide	<10%
1305-78-8	calcium oxide	<10%
1309-48-4	magnesium oxide	<10%
14808-60-7	Crystalline Silica, Quartz	<1%

· **Chemical characterization: Mixtures**

· **Description:**

Mixture: consisting of the following components.  
Refer to product data sheet for more details.

· **Additional information:** Contains agricultural liming material industrial by-product.

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.  
Seek medical treatment in case of complaints.

· **After skin contact:**

Wash with water and soap  
Immediately rinse with water.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

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· **Additional information**

The fire fighting measures given are for packaging and surrounding materials.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of dust.
- **Information about protection against explosions and fires:**  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in dry conditions.  
Store in a cool place.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**1344-95-2 Calcium Silicate (10-25%)**

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction

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TLV (USA)	Long-term value: 10 mg/m <sup>3</sup> synthetic nonfibrous, E
EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup> *total dust, **respirable fraction
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> total dust

**7778-18-9 calcium sulphate, natural (10-25%)**

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Long-term value: 10 mg/m <sup>3</sup> inhalable
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> inhalable

**1309-37-1 Iron Oxide (<10%)**

PEL (USA)	Long-term value: 10* 15** 5*** mg/m <sup>3</sup> *Fume; Rouge: **Total dust, ***respirable
REL (USA)	Long-term value: 5 mg/m <sup>3</sup> Dust & fume, as Fe
TLV (USA)	Long-term value: 5* mg/m <sup>3</sup> *as respirable fraction
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 5* 10*** 3**** mg/m <sup>3</sup> *dust & fume**fume; Rouge: ***total dust****resp.
EV (Canada)	Long-term value: 5* 10** mg/m <sup>3</sup> *respirable, including Rouge,**total dust

**1305-78-8 calcium oxide (<10%)**

PEL (USA)	Long-term value: 5 mg/m <sup>3</sup>
REL (USA)	Long-term value: 2 mg/m <sup>3</sup>
TLV (USA)	Long-term value: 2 mg/m <sup>3</sup>
EL (Canada)	Long-term value: 2 mg/m <sup>3</sup>
EV (Canada)	Long-term value: 2 mg/m <sup>3</sup>

**1309-48-4 magnesium oxide (<10%)**

PEL (USA)	Long-term value: 15* mg/m <sup>3</sup> fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 10* 3** mg/m <sup>3</sup> *inhalable fume;**respirable dust and fume
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> inhalable

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### 14808-60-7 Crystalline Silica, Quartz (<1%)

PEL (USA)	see Quartz listing
REL (USA)	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m <sup>3</sup> ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m <sup>3</sup> *respirable fraction

• **Additional information:**

The lists that were valid during the creation were used as basis.  
Provide effective ventilation or local exhaust during heat-up or dust emitting operations (e.g. cutting).

• **Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

• **Breathing equipment:**

Consult with health and safety professional for proper respirator selection  
The user must review his/her own circumstances and then determine what is required for proper respiratory protection.  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
Suitable respiratory protective device recommended.  
Whenever dust is generated  
NIOSH-approved respirator is recommended if exposure limits are exceeded.

• **Protection of hands:**



Protective gloves

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· Eye protection:



Tightly sealed goggles

### 9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Solid
Color:	Light grey
· Odor:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not applicable.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

· Ignition temperature:

Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Density: Not determined.

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

· Solubility in / Miscibility with

Water: Slightly soluble.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

· Other information: No further relevant information available.

### 10 Stability and reactivity

· Possibility of hazardous reactions: No dangerous reactions known.

· Conditions to avoid: No further relevant information available.

· Incompatible materials: No further relevant information available.

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- **Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** None

### 11 Toxicological information

- **Information on toxicological effects**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

1309-37-1	Iron Oxide	3	<10%
14808-60-7	Crystalline Silica, Quartz	1	<1%

- **NTP (National Toxicology Program)**

14808-60-7	Crystalline Silica, Quartz	K	<1%
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- **OSHA (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Additional Information:**  
This product contains lime which will hydrate in contact with water and generate heat. Care should therefore be taken in the event of co-disposal with combustible materials.

### 14 Transport information

- **Environmental hazards:** Not applicable.

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· **Special precautions for user** Not applicable.

· **Remarks:** This product is not a hazardous material as defined in 49 U.S. CFR Part 172. It is not defined as hazardous in the IATA Regulations, Section 4.2. No specific precaution is required for the transport of refractory products.

· **UN "Model Regulation":** -

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

16389-88-1	dolomite
1344-95-2	Calcium Silicate
7778-18-9	calcium sulphate, natural
1309-37-1	Iron Oxide
1305-78-8	calcium oxide
1309-48-4	magnesium oxide
14808-60-7	Crystalline Silica, Quartz

### 16 Other information

This product is a mixture of calcium and magnesium oxide. It is also referred to as dead burned dolomite or doloma (CAS No. 37247-91-9) and calcinated dolomite (CAS No. 83897-84-1).

· **Recommended restriction of use** For professional use only

· **Department issuing SDS:** Compliance Department

· **Date of preparation / last revision** 04/28/2015 / 4

· **Abbreviations and acronyms:**

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Carc. 1A: Carcinogenicity, Hazard Category 1A