

(prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006)

## Safety Data Sheet

### Premier LC and SKLS (Crushed and Graded) Sintermagnesia

#### 1. Identification of the Substance / Preparation and of the Company / Undertaking

- 1.1 Identification of substance:** Premier **LC** Sintermagnesia.  
Premier **SKLS** Sintermagnesia.
- Other names:** Dead Burned Magnesia, Sinter Magnesia, Periclase.
- Crushed and Graded product names:** (200# (mesh); -0.5mm; -1mm; -1.4 +0.5mm; -2 +0.5mm; -3.35 +1.4mm; -5 +3.35mm; -8 +5 mm etc.)
- Chemical identity:** Magnesium Oxide (MgO)
- Identification / registration numbers:** CAS: 1309-48-4  
EINECS: 215-171-9
- 1.2 Use of the substance:** Refractory applications.
- 1.3 Company / Undertaking identification** Premier Periclase Limited  
Boyne Road  
Drogheda  
County Louth  
Ireland.  
Telephone: (+353) 41 98 70700
- Issued By:** Patrick McCleery  
[pmccleery@premierpericlase.ie](mailto:pmccleery@premierpericlase.ie)
- 1.4 Emergency telephone:** (+353) 41 98 70700 (Normal Office Hours)

#### 2. Hazards Identification

The material is classified as non-hazardous. Dust may be slightly irritating to the nose and eyes.

#### 3. Composition / Information on Ingredients

The oxides shown in the typical chemical analysis do not exist within the sintered magnesia as free, uncombined oxides, but are combined in complex mineralogical phases. Analyses are reported in the oxide form for convenience only.

Component:	Typical weight (%):	EINECS Number:	CAS Number:
MgO	97.20	215-171-9	1309-48-4
CaO	2.10	215-138-9	1305-78-8

Minor oxide impurities below 1% concentration:

SiO<sub>2</sub> (0.25%), Fe<sub>2</sub>O<sub>3</sub> (0.20%), Mn<sub>3</sub>O<sub>4</sub> (0.09%), Cr<sub>2</sub>O<sub>3</sub> (0.08%), Al<sub>2</sub>O<sub>3</sub> (0.07%), B<sub>2</sub>O<sub>3</sub> (0.02%).

#### **4. First-aid Measures**

If medical advice is required, bring this SDS with you.

- 4.1 Inhalation:** This material is considered a nuisance particulate; consequently, no significant toxic effects are expected when exposures are kept under reasonable control. Adhere to established airborne exposure limits. May cause respiratory tract irritation. If irritation occurs move victim to fresh air. Depending on the severity of exposure obtain medical advice.
- 4.2 Skin contact:** The product is not absorbed through the skin therefore it is not significantly hazardous upon skin contact. It is capable of causing minor skin irritation at most. If irritation occurs, wash gently and thoroughly with water and non-abrasive soap.
- 4.3 Eye contact:** Other than possible mechanical irritation no adverse effects are expected. If irritation occurs, flush the contaminated eye(s) with lukewarm, gently flowing water until particles have been removed. If irritation persists, obtain medical advice.
- 4.4 Ingestion:** The product is low in single dose oral toxicity. If ingestion occurs, rinse mouth with water and drink some water. Deliberate ingestion of large quantities can cause abdominal cramps, diarrhoea or bowel obstruction. In such an instance obtain medical advice.

#### **5. Fire-fighting Measures**

The product is non-flammable and is not an explosion hazard.

- 5.1 Suitable extinguishing media:** As for surrounding fire.
- 5.2 Unsuitable extinguishing media:** None known.
- 5.3 Special exposure hazards:** None known.
- 5.4 Special protective equipment for fire-fighters:** None.

#### **6. Accidental Release Measures**

- 6.1 Precautions:** No special precautions required.
- 6.2 Clean-up:** Use a standard industrial vacuum cleaner, sweep, or collect spilled material in a manner to avoid generation of dust. Reclaim product for reuse or dispose of in an appropriate manner. Alternatively, wash small spillages away with water subject to local waste water disposal regulations. For disposal of larger spillages see Section 13.  
Wash contaminated clothing to avoid possible irritation.

#### **7. Handling and Storage**

- 7.1 Handling:** Product is in the form of dense, off-white, brown or brown-green grains or powder. Avoid generating dust whenever possible.
- 7.2 Storage:** Store in a dry area. Good housekeeping is important. Avoid dust build-up by frequent cleaning. Keep away from incompatible materials such as strong acids and interhalogens.

## 8. Exposure Controls / Personal Protection

### 8.1 Occupational Exposure Limits:

Substance	Long term (8 hour) limit (mg m <sup>-3</sup> )	Short term (15mins) limit (mg m <sup>-3</sup> )	Status
Magnesium oxide (as Mg)			
Respirable dust	4	Not assigned	UK WEL (EH40/2005)
Fume	4	Not assigned	UK WEL (EH40/2005)
Inhalable dust	10	Not assigned	UK WEL (EH40/2005)
	10	Not assigned	ACGIH (2007 TLV)

### 8.2 Exposure Controls

#### Engineering controls:

Exposure to this material can be controlled in many ways. The measures appropriate to a particular situation will depend on the extent of exposure. Suitable methods may include changes in work methods or isolation of the process. It is recommended that airborne concentrations be maintained below the established exposure limits by adequate ventilation. Where large quantities of dust may be generated, local exhaust ventilation or extraction (with appropriate filtration) may be necessary to control airborne dust.

#### Personal protection:

*Respiratory protection:* Under the majority of circumstances a disposable respirator, which meets the European Standard EN149 FFP2 should offer sufficient protection. However ambient concentrations should be monitored and if the recommended exposure limit is exceeded an approved dust respirator, appropriate for the measured concentrations must be worn.

*Hand protection:* No specific requirement but it is good practice to wear appropriate gloves when handling the material.

*Eye protection:* No specific requirement, but it is good practice to wear safety glasses/goggles.

*Skin protection:* No specific requirement, but it is good practice to prevent skin contact by wearing clean, body covering clothes and shoes.

#### Environmental Exposure controls:

The material is classified as non-hazardous. However users should abide by local environmental regulations in relation to air and water emissions. Disposal should comply with local disposal and waste regulations.

## 9. Physical and Chemical Properties

<b>9.1 Appearance:</b>	Brown/Brown-Green hard solid grains or off-white/grey or beige fine powder.
<b>9.2 Odour:</b>	None
<b>9.3 pH Value:</b>	Not applicable
<b>9.4 Boiling point:</b>	3,600°C
<b>9.5 Melting point:</b>	2,800°C
<b>9.6 Flash point:</b>	Not applicable
<b>9.7 Flammability:</b>	Not flammable
<b>9.8 Auto flammability:</b>	Not applicable
<b>9.9 Explosive properties:</b>	Not explosive
<b>9.10 Oxidising properties:</b>	Not an oxidising agent
<b>9.11 Vapour pressure:</b>	Not applicable
<b>9.12 Bulk density:</b>	2000 kg m <sup>-3</sup>
<b>9.13 Solubility:</b>	Soluble in strong acids. Practically insoluble in water, the material will hydrate slowly when exposed to water.

## 10. Stability and Reactivity

Stable under normal conditions of use and storage.

<b>10.1 Conditions to avoid:</b>	Storage next to acids or interhalogens.
<b>10.2 Materials to avoid:</b>	Magnesium oxide is soluble in strong acids generating heat or steam; violent reaction or ignition with interhalogens (e.g. chlorine trifluoride; bromine pentafluoride). Incandescent reaction with phosphorous pentachloride.
<b>10.3 Hazardous decomposition products:</b>	None.

## 11. Toxicological Information

Magnesium oxide is not classified in the Annex I of Directive 67/548/EEC and is not listed in a priority list (as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances).

<b>11.1 Acute toxicity data for magnesium oxide:</b>	400 mg m <sup>-3</sup>	Lowest published toxic concentration; human, inhalation exposure. Effect: no details reported. (Source: RTECS.)
	4 mg m <sup>-3</sup>	Lowest published toxic concentration; mammal (species not stated), inhalation exposure. Effect: body temperature increase. (Source: RTECS.)
<b>11.2 Other multiple dose toxicity data for magnesium oxide:</b>	480 mg kg <sup>-1</sup>	Lowest published toxic dose; rodent (hamster); intratracheal exposure. Effect: tumours. (Sources: ESIS, RTECS.)

**12. Ecological Information**

This product is made from naturally occurring substances that are low in toxicity and should present no unusual hazards to the environment. There is no data currently available on ecotoxicity, mobility, persistence or bioaccumulative potential. Users of the product should abide by all local, national and other laws and regulations concerning air and water discharges.

**13. Disposal Considerations**

Dispose of in accordance with national and local authority regulations at an approved disposal site. Disposal to authorised landfill may be acceptable.

**14. Transport Considerations**

No restrictions. Magnesium oxide is not classed as hazardous for conveyance or supply under EU or UN regulations.

**15. Regulatory Information**

Issued in accordance with the Safety, Health and Welfare at Work Regulations (Chemical Agents) Regulations 2001. SI 619 of 2001. Safety Data Sheet prepared according to Regulation (EC) 1907/2006 (**REACH Regulations**) replacing Commission Directive 91/155/EEC.

Classified as not hazardous.

This safety data sheet does not constitute the user's own assessment of workplace risk. Prior to working with this substance, a full risk assessment as required by the above Regulations should be conducted.

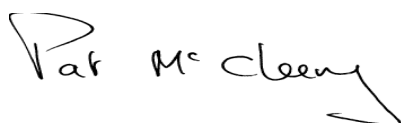
**16. Other Information**

It is recommended that users ensure that the information contained in the safety data sheet is brought to the attention of their employees and others handling this product. Distributors of this product are advised to forward this document to their customers.

The information contained in this Material Safety Data Sheet is believed to be reliable. No guarantee is implied or expressed regarding the accuracy of this information or the use of the product since the conditions of use are beyond our control.

Sources of data used to compile this Safety Data Sheet:

ESIS (European chemical Substances Information System)  
RTECS (Registry of Toxic Effects of Chemical Substances)  
HSDB (Hazardous Substances Data Bank)  
EH40/2005 Workplace Exposure Limits, UK Health and Safety Executive



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