

## Safety Data Sheet



### Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product identifier

**Product Name** • Buehler MagoMet / SDS# 9104995  
**Product Code** • 40-6440-016

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified use(s)** • Magnesia

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer** • BUEHLER, a division of Illinios Tool Works Inc.  
 41 Waukegan Road  
 Lake Bluff, IL 60044  
 United States

**Telephone (Technical)** • 847-295-6500

#### 1.4 Emergency telephone number

**Manufacturer** • 800-424-9300 - CHEMTREC

### Section 2: Hazards Identification

#### EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]  
 According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

#### 2.1 Classification of the substance or mixture

**CLP** • Not classified  
**DSD/DPD** • Not classified

#### 2.2 Label Elements

**CLP**  
**Hazard statements** • No label element(s) required  
**DSD/DPD**  
**Risk phrases** • No label element(s) required

#### 2.3 Other Hazards

**CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.  
**DSD/DPD** • According to European Directive 1999/45/EC this preparation is not considered dangerous.

## UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

### 2.1 Classification of the substance or mixture

- UN GHS
- Not classified

### 2.2 Label elements

- UN GHS
- Hazard statements** • No label element(s) required

### 2.3 Other hazards

- UN GHS
- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is not considered hazardous.
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## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012
- Not classified

### 2.2 Label elements

- OSHA HCS 2012
- Hazard statements** • No label element(s) required

### 2.3 Other hazards

- OSHA HCS 2012
- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.
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## Canada

According to: WHMIS

### 2.1 Classification of the substance or mixture

- WHMIS
- Not classified

### 2.2 Label elements

- WHMIS
- No label element(s) required.

### 2.3 Other hazards

- WHMIS
- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).
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## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

- Material does not meet the criteria of a substance.

### 3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Magnesium oxide	CAS:1309-48-4 EC Number:215-171-9	93% TO 100%	NDA	UN GHS: Not Classified EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If signs/symptoms continue, get medical attention.
- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Obtain medical attention immediately if ingested.

### 4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

- Suitable Extinguishing Media**
- Water fog, foam, dry chemical, CO2.

- Unsuitable Extinguishing Media**
- No data available.

### 5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Magnesium oxide reacts violently or ignites with interhalogens such as chlorine trifluoride (ClF3) or bromine pentafluoride (BrF5), and incandescently with phosphorus pentachloride (PCl5).

- Hazardous Combustion Products**
- No data available.

### 5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.

- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire,

ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

## 6.2 Environmental precautions

- Avoid run off to waterways and sewers.

## 6.3 Methods and material for containment and cleaning up

### Containment/Clean-up Measures

- Avoid generating dust.  
SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.  
LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

## 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

- Keep container tightly closed. Store in a cool, dry, well-ventilated place.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

Exposure Limits/Guidelines			
	Result	ACGIH	OSHA
Magnesium oxide (1309-48-4)	TWAs	10 mg/m <sup>3</sup> TWA (inhalable fraction)	15 mg/m <sup>3</sup> TWA (fume, total particulate)

### 8.2 Exposure controls

#### Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment).

#### Personal Protective Equipment

##### Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

##### Eye/Face

- Wear safety goggles.

##### Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

#### Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

**Key to abbreviations**

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

**Section 9 - Physical and Chemical Properties****9.1 Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Solid	Appearance/Description	White solid with no odor.
Color	White	Odor	None
Odor Threshold	Data lacking		
<b>General Properties</b>			
Boiling Point	3600 C(6512 F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 3.58 @ 25 C(77 F) Water=1	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
<b>Volatility</b>			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
<b>Flammability</b>			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
<b>Environmental</b>			
Octanol/Water Partition coefficient	Data lacking		

**9.2 Other Information**

- No additional physical and chemical parameters noted.

**Section 10: Stability and Reactivity****10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

- Stable under normal temperatures and pressures.

**10.3 Possibility of hazardous reactions**

- Hazardous polymerization not indicated.

**10.4 Conditions to avoid**

- Avoid generating dust.

**10.5 Incompatible materials**

- Acids, interhalogens, phosphorus pentachloride, and chlorine trifluoride.

**10.6 Hazardous decomposition products**

- None known.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

GHS Properties	Classification
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking

### Potential Health Effects

#### Inhalation

##### Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

##### Chronic (Delayed)

- No data available

**Skin**

- Acute (Immediate)** • Exposure to dust may cause mechanical irritation.
- Chronic (Delayed)** • No data available.

**Eye**

- Acute (Immediate)** • Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)** • No data available.

**Ingestion**

- Acute (Immediate)** • Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)** • No data available.

**Section 12 - Ecological Information****12.1 Toxicity**

- Material data lacking.

**12.2 Persistence and degradability**

- Material data lacking.

**12.3 Bioaccumulative potential**

- Material data lacking.

**12.4 Mobility in Soil**

- Material data lacking.

**12.5 Results of PBT and vPvB assessment**

- No PBT and vPvB assessment has been conducted.

**12.6 Other adverse effects**

- No studies have been found.

**Section 13 - Disposal Considerations****13.1 Waste treatment methods**

- Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Section 14 - Transport Information**

	<b>14.1 UN number</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Transport hazard class(es)</b>	<b>14.4 Packing group</b>	<b>14.5 Environmental hazards</b>
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

**14.6 Special precautions for**

- None specified.

user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Data lacking.

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Magnesium oxide	1309-48-4	Yes	No	Yes	No	Yes

### Canada

#### Labor

##### Canada - WHMIS - Classifications of Substances

- Magnesium oxide

1309-48-4

Uncontrolled product according to WHMIS classification criteria

##### Canada - WHMIS - Ingredient Disclosure List

- Magnesium oxide

1309-48-4

1 %

#### Environment

##### Canada - CEPA - Priority Substances List

- Magnesium oxide

1309-48-4

Not Listed

### United States

#### Labor

##### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- Magnesium oxide

1309-48-4

Not Listed

##### U.S. - OSHA - Specifically Regulated Chemicals

- Magnesium oxide

1309-48-4

Not Listed

#### Environment

##### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- Magnesium oxide

1309-48-4

Not Listed

##### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Magnesium oxide

1309-48-4

Not Listed

##### U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- Magnesium oxide

1309-48-4

Not Listed

##### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Magnesium oxide

1309-48-4

Not Listed

##### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- Magnesium oxide

1309-48-4

Not Listed



**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

• Magnesium oxide	1309-48-4	Not Listed
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**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - California - Proposition 65 - Developmental Toxicity**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

• Magnesium oxide	1309-48-4	Not Listed
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**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

• Magnesium oxide	1309-48-4	Not Listed
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**15.2 Chemical Safety Assessment**

- No Chemical Safety Assessment has been carried out.

**Section 16 - Other Information**

**Revision Date**                      • 24/September/2015

**Preparation Date**                • 08/March/2011

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**Key to abbreviations**

NDA = No data available