

Revision date: 7/1/2021

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Use of the substance/preparation

Product identifier : Magnesium Oxide Other identifier : None

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

: For use in industrial applications such as rubber, plastics

and other specialty applications.

1.3. Details of the supplier of the safety data sheet

Carbon Enterprises Inc. PO Box 787 28205 Scippo Creek Rd Circleville, OH 43113 800-344-5770

info@ceifiltration.com

ceifiltration.com

Emergency number

1.4. Emergency telephone number

740-420-6472 9:00 AM to 4:30 PM Monday through Friday

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

This product is not classified as hazardous according to the criteria in the 2012 OSHA Hazard Communication Standard (29CFR 1910.1200).

2.2. Label elements

GHS-US labelling		
Hazard pictograms (GHS-US)	:	None
Signal word (GHS-US)	:	None
Hazard statements (GHS-US)	:	This mixture does not meet the criteria for classification
Precautionary statements (GHS-US)	:	None
2.3. Other hazards		
No additional information available		

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product Identifier	%	Classification (GHS-US)
Magnesium oxide	(CAS No) 1309-48-4	98	Not classified
Oxides of silicon, iron, aluminum, and calcium	(CAS No) mixture	2	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

Never give anything by mouth to an unconscious person. If you feel unwell, seek nedical advice (show the label where possible).
f breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Rinse mouth. Do NOT induce vomiting.

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

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

No additional medical information found. If you feel unwell, seek medical advice

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media	: Not combustible. If there is a fire close by, use suitable extinguishing agents. Water fog Carbon dioxide Dry powder Foam
Unsuitable extinguishing media	: None known.
5.2. Special hazards arising fro	om the substance or mixture
Fire hazard	: If heated to decomposition (>1700°C), magnesium oxide fumes may be generated.
Explosion hazard	: Product is not explosive.
Reactivity	: Reacts with: Incompatible materials.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from firefighting to enter drains or water courses.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: No additional risk management measures required.
SECTION 6: Accidental release me	asures

6.1.	Personal precautions, prote	ctiv	e equipment and emergency procedures
Gene	eral measures	:	Avoid creating or spreading dust. Dust deposited may be vacuum cleaned.
6.1.1	I. For non-emergency personnel		
Prote	ective equipment	:	Where excessive dust may result, use approved respiratory protection equipment.
Emer	rgency procedures	:	Evacuate unnecessary personnel.
6.1.2	2 For emergency responders		
Prote	ective equipment	:	Where excessive dust may result, use approved respiratory protection equipment.
Emei	rgency procedures	:	Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

6.4.	Reference to other sections		
Method	ls for cleaning up	:	On land, sweep or shovel into suitable containers. Minimize generation of dust.
			equipment.
Protecti	ive equipment	:	Where excessive dust may result, use approved respiratory protection

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust.

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Hygiene measures	: Smoking, eating and drinking should be prohibited in areas of storage and use. Always wash your hands immediately after handling this product, and once again before leaving the workplace.
7.2. Conditions for safe storage,	including any incompatibilities
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from incompatible materials. Keep container closed when not in use.
Incompatible materials	 ACID (Strong) – vigorous reaction, heat generated; Chlorine Trifluoride reacts violently, producing flame; Phosphorous pentachloride – incandesces brilliantly. NOTE: Exposure to water may cause this product to slowly hydrate, during which heat may be generated (exothermic reaction).
7.3. Specific end use(s)	

Reference Section 1.2.

SECTION 8: Exposure controls/personal protection

	8.1. Contro	l parameters			
	Magnesium oxic	le (1309-48-4)			
	USA ACGIH	ACGIH TWA (mg/m ³)		10mg/m ³	
	USA ACGIH	Remark (ACGIH)		(inhalable fraction)	
	USA OSHA	OSHA PEL (TWA) (mg/m ³)		15 mg/m ³	
	8.2. Exposu	ire controls			
	Appropriate eng	ineering controls :	Avoi air). expo	d dispersal of dust in the air (Provide local exhaust ventila osures.	(i.e., clearing dust surfaces with compressed ation of closed transfer systems to minimize
	Personal protect	ive equipment :	In ca prot dust	se of dust productions; dust ective goggles. Insufficient v production: self-contained b	impervious gloves. In case of dust production: entilation: wear respiratory protection. High reathing apparatus.
	Hand protection	:	Wea	r protective gloves; dust imp	ervious gloves.
	Eye protection Respiratory prot	ection :	Cher In ca purif UP T resp UP T mod UP T pow effic face UP T oper EME brea mod dem cont pres	se of insufficient ventilation, iying respirator equipped wit O 100 MG/M3: Any dust, mis irator; or, self-contained brea O 250 MG/M3: Any supplied e or any powered air purifyir O 500 MG/M3: High efficient ered air supplied respirator v iency particulate filter; any se piece; any supplied air respir O 7500 MG/M3: Any air supp ated in a pressure demand o RGENCY or ENTRY INTO UNK thing apparatus with full face e or air supplied respirator w and or other positive pressur ained berthing apparatus op- sure mode.	 wear suitable respiratory equipment.; Use air- h particulate filtering cartridges. st or fume respirator; any air supplied athing apparatus. air respirator operated in a continuous flow ng respirator with a dust/mist/fume filter. cy particulate filter with full face piece; any vith a tight fitting face piece and a high elf-contained breathing apparatus with a full rator with a full face piece. olied respirator with full face piece and r other positive pressure mode. OWN CONCENTRATIONS: Self-contained e piece and operated in pressure demand vith full face piece operated in a pressure re mode in combination with auxiliary self- erated in pressure demand or positive
	Other information	on :	Whe	n using, do not eat, drink or	smoke.
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SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and o	chen	nical properties
Physical state	:	Solid
Appearance	:	Powder
Molecular mass	:	40.3 g/mol
Color	:	white
Odor	:	Odorless
Odor threshold	:	No data available
рН	:	No data available
pH solution	:	10.3 saturated aqueous solution
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	2827 (2797-2857) °C
Freezing point	:	No data available
Boiling point	:	3600 °C
Flash point	:	Product does not sustain combustion
Self-ignition temperature	:	No data available
Decomposition temperature	:	> 1700 °C
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Vapor pressure at 50 °C	:	0 hPa
Relative vapor density at 20 °C	:	0
Relative density	:	No data available
Density	:	3.58 g/cm ³
Solubility	:	In water, material is partially soluble
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Product is not explosive
Oxidizing properties	:	No data available
Explosive limits	:	No data available
9.2. Other information		
No additional information available		

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with: Incompatible materials.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid contact with incompatible materials, excessive heat or cold, moisture.

10.5. Incompatible materials

ACID (Strong) – vigorous reaction, heat generated; Chlorine Trifluoride reacts violently, producing flame; Phosphorous Pentachloride – incandesces brilliantly. NOTE: Exposure to water may cause this product to slowly hydrate, during which heat may be generated (exothermic reaction).

10.6. Hazardous decomposition products

If magnesium oxide is heated to the point of volatilization (i.e., >1700°C), magnesium oxide fumes may be generated.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Not classified. (Based on available data, the classification criteria are not met.)

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Magnesium oxide (1309-48-4)	
LD50 oral rat	3990 mg/kg
ATE (oral)	3990.000 mg/kg body weight
Skin corrosion/irritation	: Not classified. (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified. (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization	: Not classified. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified. (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified. (Based on available data, the classification criteria are not met)
Magnesium oxide (1309-48-4)	
IARC group	Not listed in carcinogenicity class
National Toxicology Program (NTP) Status	Not listed in carcinogenicity class
Reproductive toxicity	: Not classified. (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified. (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified. (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified. (Based on available data, the classification criteria are not met)
	: Not classified. (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and	symptoms
Symptoms/injuries after inhalation	: Inhalation may cause: irritation, cough, shortness of breath
Symptoms/injuries after skin contact	: Effects of skin contact may include: skin irritation
Symptoms/injuries after eye contact	: May cause eye irritation
Symptoms/injuries after ingestion	: Ingestion generally causes purging of the bowels. Swallowing large amounts may cause bowel obstruction.
Likely routes of exposure	: dermal: inhalation

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2.	Persistence and degradability	
	Magnesium oxide (1309-48-4)	
	Persistence and degradability	Not established
12.3.	Bio accumulative potential	
	Magnesium oxide (1309-48-4)	
	Bio accumulative potential	Not established
12.4.	Mobility in soil	
	No additional information available	
12.5.	Other adverse effects	
	Other information	: Avoid release to the environme
SECTION :	13: Disposal considerations	
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Waste treatment methods	:	Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Dispose in a safe manner in accordance with local/national regulations.
Waste disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations.
Ecology – waste materials	:	Avoid release to the environment.

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- **14.1.** In accordance with DOT: Not considered a dangerous good for transport regulations.
- 14.2. In accordance with ADR: Transport document description.
- **14.3.** Transport by sea: No additional information available.
- 14.4. Transport by air: No additional information available.

SECTION 15: Regulatory information

15.1. US Federal regulations

Magnesium oxide (1309-48-4)		
Listed on the United States TSCA (Toxic S	ubstances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	No
	Delayed (chronic) health hazard	No
	Fire hazard	No
	Sudden release of pressure hazard	No
	Reactive hazard	No
Sara Section 313 – Emission Reporting	Magnesium oxide is not hazardous and	is not subject to Form R reporting requirements.

15.2. US State Regulations

Magnesium Oxide (1309-48-4)				
State or local regulations	U.S.	-	Illinois Right-to-Know Toxic Substances List	
	U.S.	-	Massachusetts Right-to-Know	
	U.S.	-	Minnesota Right-to-Know	
	U.S.	-	New Jersey Right-to-Know	
	U.S.	-	Pennsylvania Right-to-Know	
	U.S.	-	Rhode Island Right-to-Know	
45.0				

15.3. International regulations

Magnesium oxi	de (1309-48-4)	
Jurisdiction	List	Comment
Asia Pacific	Asia – PAC	
Australia	Australian Inventory of Chemical Substances (AICS)	
	National Pollutant Inventory	magnesium oxide fume
	Priority Existing Chemicals	
China	Inventory of Existing Chemical Substances (IECSC)	
Japan	Existing and New Chemical Substances (ENCS)	# 1-465; inorganic compounds
Korea	KECI (Chemical Inventory of Korea)	KE-22728
New Zealand	Inventory of Chemicals (NZIoC)	HSNO approval
Philippines	Inventory of Chemicals and Chemical Substances (PICCS)	
Europe	EEC International Cosmetics Ingredients Inventory (INCO)	absorbent/buffering/opacifying/additives
	EU REACH pre-registered	
	German Water Hazard Class Substance List	5208
		Classification: VwVwS
	Switzerland Giftliste 1 (List of Toxic Substances)	G-2368
Canada	Canadian Domesticated Substances List (DSL)	
	WHMIS Ingredient List	
United States	ACGIH Threshold Limit Values (TLV)	
	EPA Pesticide Inert Ingredients	
	FDA Priority-based Assessment of Food Additives (PAFA)	
	FDA Regulations	Use as colorant.
	High Production Volume Chemicals (HPV)	
	National Toxicology Program Technical Reports List	
	NIOSH Hazard, Toxicology, and Use Information	
	NIOSH Health Hazards	
	NIOSH Recommended Exposure Limits	10 mg/m ³
	OSHA Permissible Exposure Limits	8 hour TWA: total particulates 15 mg/m ³
	Toxic Substances Control Act (TSCA) Inventory	

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	Toxic Inventory Update Rule	
	TSCA Section 8A-Preliminary Assessment Information Rule (PAIR)	
Other	Health Hazards	RTECS: OM3850000
	High Production Volume Chemicals: ICCA	
	High Production Volume Chemicals: OECD	

SECTION 16: Other information

16.1. Indication of changes:

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Clarified SARA 311/312 and 313 reporting requirements

16.2. Data Sources

: ACGIH 2000

Chemical Inspection & Regulation Services; accessed at:

Modified

http://www.cirsreach.com/Inventory/global_Chemical_Inventories.html

Ind. Exposure & Control Techn. for OSHA Regulated Substances – MgO (fume), March 1989, pp. 1181-1184 Krister Forsberg and S.Z. MMansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. NIOSH Occupational Health Guide for chemical Substances – Vol. II, September, 1978.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing DIRECTIVES 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

RTECS, June 1998.

 $\operatorname{Sax} \operatorname{-8^{th}} \operatorname{Ed}$. TSCA Chemical Substance Inventory. Accessed at

http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html

US National Library of Medicine National Institutes of Health Haz-Map. Accessed at http://hazmap.nlm.nih.gov

16.3. Abbreviations and acronyms

: ACGIH (American Conference of Government Industrial Hygienists).

- ATE: Acute Toxicity Estimate.
- CAS (Chemical Abstracts Service) number.
- EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling) of Chemicals.

LD50: Lethal Dose of 50% of the test population.

OSHA: Occupational Safety & Health Administration.

- TSCA: Toxic Substances Control Act.
- TWA: Time Weighted Average.

16.4. Other information

: None

16.5. NFPA

NFPA health hazard	:	0 – Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials	
NFPA fire hazard	:	0 – Materials that will not burn.	
NFPA reactivity	:	0 – Normally stable, even under fire exposure conditions, and are not reactive with water.	



SDS No. 1309-48-4

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