

SAFETY DATA SHEET

Conforms to OSHA HazCom 2012, CPR, NOM-018-STPS-2000 Standards & GHS

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): CCS - MAGOX Magnesium Hydroxide; Liquid/Slurry

Product Identities: BruMag Slurry, Magnesium Hydroxide, in suspension / slurry.




Supplier/Manufacture:

Clear Chem Solutions LLC
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Emergency number: 1-800-424-9300

Recommended Uses: Magnesium Hydroxide slurry has many uses in chemical processing, water treatment, (Acid Neutralization, Soluble Metals Reduction); Gas Stream Purification (SO₂ Removal); Boiler slag control; Odor control in waste water. BruMag Slurry is a Non-hazardous replacement for Caustic Soda (NaOH) in pH control and waste water treatment systems.

Restrictions on Use: Acids (unless used in a controlled process), and Aluminum powder

SECTION 2: HAZARD IDENTIFICATION

	<p>WARNING</p>	 Respiratory Protection	 Eye Protection
	<p>Irritant: Causes eye, skin and inhalation irritation</p> <p>Use proper engineering controls, work practices, and personal protective equipment to prevent exposure to wet or dry product.</p> <p>Read SDS for details.</p>		

GHS Classification: (Please see GHS Classifications on our website under Resources)

Skin Irritation - Category 2

Eye Irritation - Category 2A

Specific Target Organ Toxicity Repeat Exposure - Category 2

GHS LABEL ELEMENTS Symbol(s)



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS RN	ACGIH TLV (mg/m ³)	OSHA-PEL (mg/m ³)
Magnesium Hydroxide	1317-43-7	10	15
Water	7732-18-5		

Magnesium Hydroxide is a natural mineral. Trace amounts of other chemicals may be detected by chemical analyses.

SECTION 4: FIRST-AID MEASURES

Eye Contact:	Rinse eyes thoroughly with water for at least 15 minutes, including under lids to remove all particles. Seek medical attention for discomfort or if irritation or other symptoms do not subside.
Skin Contact:	Wash with water and pH neutral soap or a mild skin detergent. Seek medical attention for rash, irritation, dermatitis and prolonged unprotected exposures to wet Magnesium Hydroxide.
Inhalation:	Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
Ingestion:	Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Flashpoint & Method:	Non-combustible
General Hazard:	Avoid breathing dust.
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.
Firefighting Equipment:	Magnesium Hydroxide poses no fire-related hazard.
Combustion Products:	In excess of 1000°C compounds will break down into their constituent oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

General:	Place spilled material into a container. Avoid actions that cause the Magnesium Hydroxide to become airborne. Avoid inhalation of Magnesium Hydroxide and direct contact with skin. Wear appropriate Personal Protective Equipment (PPE) as described in Section 8 below.
Waste Disposal:	Dispose of Magnesium Hydroxide according to Federal, State, Provincial and local regulations.

SECTION 7: HANDLING AND STORAGE

General:	Handle with care and use appropriate control measures. Some agitation is needed to keep solids in suspension while slurry is in storage. It is not necessary to operate an agitator continuously. Intermittently mixing Magnesium Hydroxide slurry for 1 out of 3 hours can effectively agitate the slurry (i.e. keep the solids in suspension). Short shutdown periods due to power outages will not adversely affect the slurry; but 4-8 hours of continuous agitation should follow such incidents. One should avoid longer shutdown periods. However, if such periods are unavoidable, one should air-sparge the slurry around the agitator's propeller before restarting the mixer. This will help reduce the power surge upon the mixer restart. Agitator manufacturers can provide advice on the proper selection of suitable equipment for an agitator's intended purpose. All process pipes must be heated and/or insulated if they are located in areas where temperatures are extreme (below 32°F or above 95°F). Steam tracing is not recommended the high temperature generated by the steam can dry the Magnesium Hydroxide solids
<u>Engulfment hazard:</u>	To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck or other storage container or vessel that stores or contains Magnesium Hydroxide. Magnesium Hydroxide can build up or adhere to the walls of a confined space. The Magnesium Hydroxide can suddenly release, collapse, or fall unexpectedly.
Housekeeping:	Avoid actions that cause Magnesium Hydroxide to become airborne during clean-up such as dry sweeping or using compressed air.
Storage Temperature:	See Notes above Generally Handling & Storage
Storage Pressure:	Ambient.
Storage Moisture:	Slurry concentration is kept at 50% which is equal to 12lbs of Magnesium Hydroxide per Gallon U.S.
Clothing:	Promptly remove and launder clothing that is dusty or wet with Magnesium Hydroxide. Thoroughly wash skin after exposure to Magnesium Hydroxide.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:	Use local exhaust and general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.
Personal Protective Equipment (PPE):	
<u>Respiratory Protection:</u>	Under ordinary circumstances no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.
<u>Eye Protection:</u>	Wear ANSI approved glasses or safety goggles when handling dust or slurries to prevent contact with eyes.
<u>Skin protection:</u>	Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves. Remove clothing and PPE that become saturated with wet Magnesium Hydroxide and immediately wash exposed areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid Slurry	Evaporation Rate:	NA
Appearance:	White to off-white.	pH (in water):	10
Odor:	None	Boiling Point:	>1000°C
Vapor Pressure:	NA	Freezing Point:	32°F
Vapor Density:	NA	Viscosity:	None, solid
Specific Gravity	2.36	Solubility in water:	Aqueous Slurry

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under ambient temperature and pressures. Avoid contact with incompatible materials.
Incompatibility:	Acids – vigorous reaction, heat generated (unless used in a controlled process) Aluminum powder – may ignite/explode when heated;
Hazardous Polymerization:	None.
Hazardous Decompositions:	Oxides of magnesium - Will not spontaneously occur. Avoid exposure to acids and oxidizers.

SECTION 11 AND 12: TOXICOLOGICAL AND ECOLOGICAL INFORMATION

For questions regarding toxicological and ecological information refer to contact information in Section 1.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of waste and containers in compliance with Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

This product is not classified as a Hazardous material under US D.O.T or Canadian TDG regulations.

SECTION 15: REGULATORY INFORMATION

OSHA/MSHA Hazard Communication:

This product is not considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.

CERCLA/Superfund:

This product is not listed as a CERCLA hazardous substance.

EPCRA

This product has been reviewed according to the EPA Hazard Categories

SARA Title III:

Promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and this product is considered a "Non-hazardous substance".

EPRCA

This product does not contain any of the substance subject to the reporting

SARA Section 313:

This product does not contain any SARA reportable requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

Proposition 65:

WARNING: This material may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION

General Abbreviations:

>	Greater than	NIOSH	National Institute for Occupational Safety and Health
<	Lesser than	NTP	National Toxicology Program
ACGIH	American Conference of Governmental Industrial Hygienists	OSHA	Occupational Safety and Health Administration
CAS RN	Chemical Abstracts Reference Number	PEL	Permissible Exposure Limit
CERCLA	Comprehensive Environmental Response, Compensations and Liability Act	pH	Negative log of hydrogen ion
CFR	Code of Federal Regulations	PPE	Personal Protective Equipment
CL	Ceiling Limit	R	Respirable Particulate
DOT	Department of Transportation	RCRA	Resource Conservation and Reauthorization Act
g/cm ³	Grams per cubic centimeter	SARA	Superfund Amendments and Reauthorization Act
HEPA	High-Efficiency Particulate Air	SDS	Safety Data Sheet
HMIS	Hazardous Materials Identification Systems	T	Total Particulate
IARC	International Agency for Research on Cancer	TDG	Transportation of Dangerous Goods
mg/m ³	Milligrams per cubic meter	TLV	Threshold Limit Value
MSHA	Mine Safety and Health Administration	TWA	Time Weighted Average (8 hour)
NA	Not Applicable	WHMIS	Workplace Hazardous Materials Information System
NFPA	National Fire Protection Association	---	-----

This SDS (Section 1-16) was revised on May 21, 2015.

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