


AF-10-3232, AF-20-3232, AF-10-3232-BB, AF-20-3232-BB

(Mixture of Magnesium Oxide Media and Calcium Carbonate)

Effective date 1 January 2021

SECTION 1: Identification	
1A: Product Names	AF-10-3232, AF-20-3232, AF-10-3232-BB, AF-20-3232-BB
1B: Common Name	Cartridge with Corosex, FloMag PWT 6 x 16 (Magnesium Oxide) & Calcite, XO White (Calcium Carbonate)
1C: Intended use	Corosex - For use in potable water treatment (NSF standard 60 for drinking Water Chemicals) Calcite - Ground Limestone (calcium carbonate) based additives
1D: Manufacturer Address	<p>Corosex Martin Marietta Magnesia Specialties, LLC 1800 Eastlake Road Mainstee, MI 48660</p> <p>Calcite Imerys Pigments & Additives Group 100 Mansell Court East, Suite 300 Roswell, GA 30076</p> <p>Cartridge ResinTech Inc. 1801 Federal Street Camden, NJ 08105</p>
Contact Information:	<p>Corosex Ph: (410) 780-5500</p> <p>Calcite Ph: (770) 594-0660 Fax: (770) 645-3384</p> <p>Cartridge 856-626-1550 info@resintech.com</p>

SECTION 2: Hazard Identification	
Physical and Chemical Hazards:	Not Classified
Human Health:	Quartz: STOT RE 1 – H372.
Environment:	Not Classified
 WARNING	H372: Causes damage to lungs through prolonged or repeated exposure via inhalation.

SECTION 2: Hazard Identification Continued	
Precautionary Statements	<p>P260: Do not breathe dust</p> <p>P285: In case of inadequate ventilation wear respiratory protection</p> <p>P501: Dispose of contents/containers in accordance with local regulations.</p> <p>Long term exposure to crystalline silica can cause lung injury (silicosis) IARC and NTP have determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure.</p>
2B: Product description	Black irregular pieces with little or no odor.
2C: Precautions for use	Safety glasses and gloves recommended. Wet carbon adsorbs oxygen from air and can cause a hazard in confined spaces. Avoid breathing dust when handling dry carbon. Dust mask or respirator recommended for poorly ventilated spaces.
Potential health effects	Will cause eye irritation. Ingestion is not likely to pose a health risk. Dust may be mildly irritating.
2D: Environmental effects	Little or none.

SECTION 3: Composition/ Information on Ingredients

Ingredient	Wt % (Approx)	Case No	OSHA PEL	ACGIH TLV*
Ground Limestone	> 99%	1317-65-3	5 mg/m ³ Resp 15 mg/ m ³ Total	2 mg/m ³ Resp
Crystalline Silica, Quartz	0.1% - 0.4%	14808-60-7	0.1 mg/m ³ Resp.	0.025 mg/m ³ Resp.
Water	< 1%			
Magnesium Oxide	98 %	1309-48-4		
Oxides of Silica, Iron, Aluminum and Calcium	2%	Mixture		

SECTION 4: First Aid Measures

4A: Inhalation	Remove to fresh air immediately. Do not permit exposed person to remain in dusty environment without adequate respiratory protection.
4B: Skin	Remove from source of exposure. Remove contaminated clothing and wash affected area thoroughly with a mild soap and water. Wash contaminated clothing before reusing
4C: Eye contact	Do not rub eyes. Wash eyes under slowly running water for at least fifteen minutes, making sure eyes are held wide open and moved slowly in every direction. Ensure no solid particles remain in creases of eyelids. If so, continue to wash. If irritation persists, consult an ophthalmologist.
4D: Ingestion	Follow good industrial hygiene practices. If ingested, do not induce vomiting. If conscious, drink two glasses of water. Seek medical aid if necessary.

SECTION 5: Fire Fighting Measures

5A: Flammability	Not Flammable
5B: Extinguishing media	Water, CO ₂ , Dry Chemical or foam
5C: Fire fighting Procedures	Follow general fire fighting procedures indicated in the work place.
5D: Protective Equipment	MSHA/NIOSH approved self-contained breathing gear, full protective clothing.
5E: Combustion Products	No special fire or explosive hazard
5F: Unusual Hazards	No Special fire or explosive hazards

Revision 1.0

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SECTION 6: Accidental Release Measures	
6A: Personal Precautions	Keep people away, spilled resin can be a slipping hazard, wear gloves and safety glasses to minimize skin or eye contact.
6B: Incompatible Chemicals	Acids should be avoided. Heat will be generated with Magnesium Oxide. Carbon Dioxide will be released with Calcium Carbonate. Magnesium Oxide: Chlorine Trifluoride reacts violently, producing flame; Phosphorus Pentachloride – incandescences brilliantly
6C: Environmental Precautions	Keep out of public sewers and waterways.
6D: Containment Materials	Use plastic or paper containers, unlined metal containers not recommended.
6E: Methods of Clean-up	Sweep up material and transfer to containers

SECTION 7: Handling and Storage	
7A: Handling	Avoid prolonged skin contact
7B: Storage	Store in a cool dry place
7A: TSCA considerations	Calcium Carbonate - Product is listed in Initial Inventory, Vol. 1, Appendix A, CAS 1317-65-3. Magnesium Oxide - Product is listed in Initial Inventory List: CAS 1309-48-4

SECTION 8: Exposure Controls/Personal Protection		
8A: Control Parameters		
Magnesium Oxide (1309-48-4)		
USA ACGIH	ACIGH TWA (mg/m ³)	10 mg/m ³
USA ACGIH	Remark (ACIGH)	(inhalable fraction)
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
Component	Standard	TWA (8-hrs)
Limestone	PEL	15 mg/m ³
	ACIGH	2 mg/m ³
Quartz	PEL	0.05 mg/m ³
	ACIGH	0.025 mg/m ³
Component		IDHL
Quartz		25 mg/m ³

SECTION 8: Exposure Controls/Personal Protection

8B: Exposure Controls	<p>Appropriate engineering controls- Avoid dispersal of dust in the air (i.e. clearing dust surfaces with compressed air). Provide local exhaust ventilation of closed transfer systems to minimize exposures.</p> <p>Hand protection- Wear protective gloves: dust impervious gloves</p> <p>Eye protection- Chemical goggles or safety glasses.</p> <p>Respiratory protection- In case of insufficient ventilation, wear suitable respiratory equipment; Use air-purifying respirator equipped with particulate filtering cartridges.</p> <p>Other information- When using do not eat or smoke.</p>
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SECTION 9: Physical and Chemical Properties

Physical State:	Solid
Appearance & Odor:	Odorless, white
pH (Aqueous Suspension)	Calcium Carbonate- 9-10 Magnesium Oxide-~10 (saturated solution)
Specific Gravity:	Calcium Carbonate- ~2.7 (water = 1) Magnesium Oxide- 3.5 to 3.6
Melting Point	Calcium Carbonate- 825 °C Magnesium Oxide- 2800 °C
% Solubility in Water:	Calcium Carbonate- 1.4 mg/100 ml @ 25 °C Magnesium Oxide- slightly soluble in water
Vapor Pressure (MM HG):	Calcium Carbonate- N/A Magnesium Oxide- ~ Zero mm Hg at 20 °C
Evaporation Rate (water = 1):	N/A
Boiling Point:	Calcium Carbonate- N/A Magnesium Oxide-3582 °C @ 760 mm Hg
Freezing Point:	N/A
VOC:	Calcium Carbonate- None Magnesium Oxide-
Vapor Density:	N/A
Density	3.5 to 3.6
Decomposition Temperature:	Magnesium Oxide-> 1700 °C

SECTION 10: Stability and Reactivity	
10A: Stability	Stable under ambient temperatures and pressures.
10B: Conditions to Avoid	Magnesium oxide: Exposure to water may cause this product to very slowly hydrate, during which heat may be generated (exothermic reaction).
10C: Hazardous by-products	Calcium carbonate will react with acids to produce carbon dioxide gases.
10D: Incompatible materials	Acids should be avoided. Heat will be generated with Magnesium Oxide. Carbon Dioxide will be released with Calcium Carbonate. Magnesium Oxide: Chlorine Trifluoride reacts violently. Producing flame; Phosphorus Pentachloride – incandescences brilliantly
10E: Hazardous Polymerization	Material does not polymerize

SECTION 11: Toxicological Information	
11A: Toxicological Effects Acute toxicity: Not classified (Based on available data the classification criteria are not met)	
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)

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 bowels. Swallowing large amounts may cause bowel obstruction.

Likely routes of exposure: dermal, inhalation

SECTION 12: Ecological information	
12A: Eco toxicity	No additional information available
12B: Mobility	No additional information available
12C: Biodegradability	Not established
12D: Bioaccumulation	Not established
12E: Other adverse effects	Avoid release to the environment.

SECTION 13: Disposal Considerations	
13A: Disposal 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. Avoid release to the environment.

SECTION 14: Transportation Information	
14A: Transportation Class	Considered non hazardous
14B: TDG	Not considered a Dangerous Good
14C: IATA	Not considered a Dangerous Good
14D: DOT (49 CFR 172.101)	Considered non hazardous
14E: IMDG	Not considered a Dangerous Good

SECTION 15: Regulatory Information	
15A: OSHA Hazard Communication Standard. 29 CFR 1910.1200:	Material is considered hazardous See section 2.
15B: CERCLA:	Material is not reportable under CERCLA; local Requirements may vary.
15C: SARA Title III	311/312 Hazard categories – Immediate and Delayed Health.
15D: RCRA	Material is not defined as a hazardous waste per 40 CFR 261.
15E: California Proposition 65	This product contains chemicals known to the state of California to cause cancer.
15F: EU REACH Regulations	Exempted in accordance with Annex v.7
15G: TSCA	Product is listed in initial Inventory, Vol 1, Appendix A, CAS No 1317-65-3.

SECTION 16: Other Information	
<p>This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that their activities comply with federal, state, and local laws.</p>	
16A: Date of Revision	1 January 2021