

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : GR-FG 100  
 CAS-No. : Mixture  
 Product code : 5359 Mix3806  
 Other means of identification : Magnesita-Chrome Brick

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Refractory  
 Recommended use : Industrial use

#### 1.3. Supplier

Resco Products, Inc.  
 One Robinson Plaza, Suite 300  
 6600 Steubenville Pike  
 Pittsburgh, PA 15205 - United States  
 412-494-4491

[SDS@RescoProducts.com](mailto:SDS@RescoProducts.com) - [WWW.RescoProducts.com](http://WWW.RescoProducts.com)

#### 1.4. Emergency telephone number

Emergency number : EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300  
 Outside USA & Canada +1 703-741-5970

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation  
 Serious eye damage/eye irritation Category 2B H320 Causes eye irritation  
 Specific target organ toxicity (single exposure) Category 3 H335 May cause respiratory irritation

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning  
 Hazard statements (GHS US) : Dust from sawing or tear out may irritate eye.  
 H315 - Causes skin irritation  
 H320 - Causes eye irritation  
 H335 - May cause respiratory irritation  
 Precautionary statements (GHS US) : P260 - Do not breathe Dust when sawing or tear out.  
 P280 - Wear protective gloves, eye protection, Safety shoes.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Magnesium Oxide	(CAS-No.) 1309-48-4	50 – 75	Not classified
chromium(III) oxide	(CAS-No.) 1308-38-9	10 – 20	Not classified
iron(III) oxide	(CAS-No.) 1309-37-1	10 – 20	Not classified
aluminium oxide, non-fibrous	(CAS-No.) 1344-28-1	5 – 10	Not classified

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person.  
 First-aid measures after inhalation : Remove the victim into fresh air.  
 First-aid measures after skin contact : Gently wash with plenty of soap and water.  
 First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 First-aid measures after ingestion : Rinse mouth with water. Do NOT induce vomiting. Get medical advice/attention.

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### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : No additional information available.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.  
Unsuitable extinguishing media : No unsuitable extinguishing media known.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Non-flammable.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : No specific fire-fighting instructions required.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Safety shoes. Gloves. Safety glasses.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

### 6.2. Environmental precautions

No additional information available

### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.  
Methods for cleaning up : Carefully collect the spill/leftovers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store in a dry place.  
Incompatible products : Strong acids.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>GR-FG 100 (Mixture)</b>	
No additional information available	
<b>Magnesium Oxide (1309-48-4)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> inhalable dust
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> respirable dust
<b>chromium(III) oxide (1308-38-9)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	0.003 mg/m <sup>3</sup> (Inhalable fraction)
<b>iron(III) oxide (1309-37-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Respirable fraction)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> respirable dust

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Dust when sawing or tear out. Provide adequate ventilation to minimize dust concentrations.

### 8.3. Individual protection measures/Personal protective equipment

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : Shape.

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Color	: Dark
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: > 2500 °F
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 2.8 – 3.3
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Fire conditions may produce small amounts of hexavalent chromium and other oxidation products.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Magnesium Oxide (1309-48-4)

LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit, Literature study, Dermal)

#### chromium(III) oxide (1308-38-9)

LD50 oral rat	> 15000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
LC50 Inhalation - Rat	> 5.41 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))

#### iron(III) oxide (1309-37-1)

LD50 oral rat	> 10000 mg/kg body weight (Rat, Male, Experimental value, Oral)
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#### aluminium oxide, non-fibrous (1344-28-1)

LD50 oral rat	> 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LC50 Inhalation - Rat	7.6 mg/l air (Equivalent or similar to OECD 403, 1 h, Rat, Male, Experimental value, Inhalation (aerosol))

Skin corrosion/irritation	: Causes skin irritation.
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### aluminium oxide, non-fibrous (1344-28-1)

Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential Adverse human health effects and symptoms	: No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### chromium(III) oxide (1308-38-9)

LC50 fish 1	> 2.9 µg/l (ISO 7346-1, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
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#### iron(III) oxide (1309-37-1)

EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
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### 12.2. Persistence and degradability

#### Magnesium Oxide (1309-48-4)

Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

#### chromium(III) oxide (1308-38-9)

Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### iron(III) oxide (1309-37-1)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

#### aluminium oxide, non-fibrous (1344-28-1)

Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### 12.3. Bioaccumulative potential

#### Magnesium Oxide (1309-48-4)

Bioaccumulative potential	No bioaccumulation data available.
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#### chromium(III) oxide (1308-38-9)

BCF fish 1	260 – 800 (Lepomis macrochirus, Fresh water, Read-across, Fresh weight)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).

#### iron(III) oxide (1309-37-1)

Bioaccumulative potential	No bioaccumulation data available.
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#### aluminium oxide, non-fibrous (1344-28-1)

Bioaccumulative potential	No data available.
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### 12.4. Mobility in soil

#### Magnesium Oxide (1309-48-4)

Ecology - soil	No data available.
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#### chromium(III) oxide (1308-38-9)

Surface tension	Not applicable (solid)
Ecology - soil	Adsorbs into the soil.

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<b>iron(III) oxide (1309-37-1)</b>	
Surface tension	Not applicable (solid)
Ecology - soil	Adsorbs into the soil.
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
Ecology - soil	No data available.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Chromite (Cr<sup>+3</sup>) may in normal use be converted chemically to a chromate (Cr<sup>+6</sup>). Hexavalent chromium (Cr<sup>+6</sup>) is considered a hazardous material.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated

### Transportation of Dangerous Goods

Not regulated

### Transport by sea

Not regulated

### Air transport

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### GR-FG 100 (Mixture)

Note This information must be included in all SDS's that are copied and distributed for this material.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### chromium(III) oxide (1308-38-9)

Subject to reporting requirements of United States SARA Section 313

#### aluminium oxide, non-fibrous (1344-28-1)

Not subject to reporting requirements of the United States SARA Section 313

Note Note: The section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the Aluminum oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting.

### 15.2. International regulations

#### CANADA

#### Magnesium Oxide (1309-48-4)

Listed on the Canadian DSL (Domestic Substances List)

#### chromium(III) oxide (1308-38-9)

Listed on the Canadian DSL (Domestic Substances List)

#### iron(III) oxide (1309-37-1)

Listed on the Canadian DSL (Domestic Substances List)

#### aluminium oxide, non-fibrous (1344-28-1)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

### National regulations

No additional information available

### 15.3. US State regulations

#### GR-FG 100 (Mixture)

U.S. - California - Proposition 65 - Other information

This product contains chromite (Cr<sup>+3</sup>) which may in normal use, be converted chemically to a chromate (Cr<sup>+6</sup>) hexavalent chrome, a chemical known to the State of California to cause cancer.

Component	State or local regulations
Magnesium Oxide (1309-48-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
chromium(III) oxide (1308-38-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List
iron(III) oxide (1309-37-1)	U.S. - New Jersey - Right to Know Hazardous Substance List

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Component	State or local regulations
aluminium oxide, non-fibrous (1344-28-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

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Revision date

: 10/19/2020

Other information

: Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.

Full text of H-phrases:

H315	Causes skin irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

*This information and recommendations set forth herein are taken from sources believed to be accurate as of the date herein, however, Resco Products, Inc. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.*