

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : RDG-DOL  
 CAS-No. : Mixture  
 Product code : 5012  
 Other means of identification : Dolomite Resin Bonded 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 1A H314 Causes severe skin burns and eye damage  
 Carcinogenicity Category 1A H350 May cause cancer (Dust when sawing or tear out, Inhalation)

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) : Danger  
 Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage  
 H350 - May cause cancer (Dust when sawing or tear out, Inhalation)  
 Precautionary statements (GHS US) : P202 - Do not handle until all safety precautions have been read and understood.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P223 - Do not allow contact with water.  
 Avoid contact with the skin and the eyes  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF ON SKIN: Gently wash with plenty of soap and water.  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.  
 P260 - Do not breathe Dust when sawing or tear out.

#### 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
calcium oxide	(CAS-No.) 1305-78-8	50 – 75	Skin Corr. 1A, H314
Magnesium Oxide	(CAS-No.) 1309-48-4	20 – 50	Not classified
graphite	(CAS-No.) 7782-42-5	1 – 5	Not classified
Phenolic Resin	(CAS-No.) 108-95-2	1 – 5	Not classified
Wax, Bulk Liquid		1 – 5	Not classified
cristobalite	(CAS-No.) 14464-46-1	0.1 – 0.5	Carc. 1A, H350

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

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### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Get medical advice/attention if you feel unwell.  
First-aid measures after inhalation : Dust when sawing or tear out. Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
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. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth.

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

- Symptoms/effects after skin contact : May cause moderate irritation.  
Symptoms/effects after eye contact : Causes serious eye irritation.

#### 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 : Carbon dioxide. Dry powder. Sand.  
Unsuitable extinguishing media : Do not use extinguishing media containing water.

#### 5.2. Specific hazards arising from the chemical

- Fire hazard : Reactions involving a fire hazard: see "Reactivity Hazard". Do not breathe fumes from fires or vapors from decomposition.

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

- Firefighting instructions : In case of fire, use powder extinguisher, "never use water". In case of fire, never use water.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.  
Other information : Product will not burn, but does contain small quantities of chemicals which can generate toxic and/or irritating vapors when initially heated. Under fire conditions hazardous combustion products such as carbon monoxide may be generated.

### SECTION 6: Accidental release measures

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

- General measures : May release smoke when heated. Combustion products include carbon monoxide, carbon dioxide, and hydrocarbon vapors.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Safety shoes. Protective gloves. Safety glasses. Protective clothing.  
Emergency procedures : Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment.

#### 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 : Mechanically recover the product.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with eyes. Contact lenses should be removed. Keep away from any possible contact with water, because of violent reaction and possible flash fire.

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

- Storage conditions : Store this product in a dry location where it can be protected from the elements. Protect from moisture.  
Incompatible products : Acids; reactive fluoridated, brominated, or phosphorous compounds; aluminum (may form hydrogen gas); reactive metals; organic acid anhydrides; nitro-organic compounds; interhalogenated compounds.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### RDG-DOL (Mixture)

No additional information available

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

##### USA - ACGIH - Occupational Exposure Limits

ACGIH TWA (mg/m<sup>3</sup>) : 10 mg/m<sup>3</sup> inhalable dust

##### USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) (mg/m<sup>3</sup>) : 10 mg/m<sup>3</sup> respirable dust

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<b>calcium oxide (1305-78-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>crystalite (14464-46-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> respirable dust
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> respirable dust
<b>Phenolic Resin (108-95-2)</b>	
No additional information available	
<b>graphite (7782-42-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (Respirable fraction)
<b>Wax, Bulk Liquid</b>	
No additional information available	

### 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	: Solid in various shapes.
Color	: Black
Odor	: Resin Odor
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)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 2.85 – 2.95
Solubility	: No data available
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

Reacts exothermically with water (moisture). Reacts with water to form Ca(OH)<sub>2</sub>, Mg(OH)<sub>2</sub>, and heat. Reacts with acids to form calcium salts while generating heat.

### 10.2. Chemical stability

No additional information available

### 10.3. Possibility of hazardous reactions

No additional information available

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### 10.4. Conditions to avoid

Water, humidity.

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide. The phenolic resin binder may undergo incomplete combustion when temperature is applied to this product. The intent of this note is as follows: (1) to apprise the customer/user of the potential for incomplete combustion, and (2) to advise that the chemical compounds produced by incomplete combustion by poor air handling practices may exceed TLV's for specific air contaminants. The specific chemical compounds which may be produced include but are not limited to: carbon monoxide, formaldehyde, phenol, alcohols, glycols, and other solvents.

## 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)

#### calcium oxide (1305-78-8)

LD50 oral rat	> 2000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral)
LD50 dermal rabbit	> 2500 mg/kg body weight (EU Method B.3: Acute toxicity (dermal), 24 h, Rabbit, Male / female, Experimental value, Dermal)

#### graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m <sup>3</sup> air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))

Skin corrosion/irritation : Causes severe skin burns.  
Serious eye damage/irritation : Assumed to cause serious eye damage  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer (Dust when sawing or tear out, Inhalation).

#### Phenolic Resin (108-95-2)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects after skin contact : May cause moderate irritation.  
Symptoms/effects after eye contact : Causes serious eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### calcium oxide (1305-78-8)

LC50 fish 1	≥ 1070 mg/l (Equivalent or similar to OECD 203, 96 h, Cyprinus carpio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	≥ 159.6 mg/l (EPA OPP 72-2, 24 h, Crustacea, Static system, Fresh water, Experimental value, Lethal)

#### graphite (7782-42-5)

LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Behaviour)

### 12.2. Persistence and degradability

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

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

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<b>calcium oxide (1305-78-8)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

<b>crystalite (14464-46-1)</b>	
Persistence and degradability	Mineral. Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>graphite (7782-42-5)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

<b>Magnesium Oxide (1309-48-4)</b>	
Bioaccumulative potential	No bioaccumulation data available.

<b>calcium oxide (1305-78-8)</b>	
Bioaccumulative potential	Not bioaccumulative.

<b>crystalite (14464-46-1)</b>	
Bioaccumulative potential	No data available.

<b>graphite (7782-42-5)</b>	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

<b>Magnesium Oxide (1309-48-4)</b>	
Ecology - soil	No data available.

<b>calcium oxide (1305-78-8)</b>	
Ecology - soil	No (test) data on mobility of the substance available.

<b>crystalite (14464-46-1)</b>	
Ecology - soil	No data available.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

No additional information available

## 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

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

<b>RDG-DOL (Mixture)</b>		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		
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 except for:		
Wax, Bulk Liquid	CAS-No.	1 – 5%
<b>Phenolic Resin (108-95-2)</b>		
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	1000 lb	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form	

#### 15.2. International regulations

##### CANADA

<b>Magnesium Oxide (1309-48-4)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>calcium oxide (1305-78-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>crystalite (14464-46-1)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>Phenolic Resin (108-95-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>graphite (7782-42-5)</b>	
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

<b>RDG-DOL (Mixture)</b>					
U.S. - California - Proposition 65 - Other information		This product contains crystalline silica, a chemical known to the state of California to cause cancer. For more information go to <a href="http://WWW.P65Warnings.ca.gov">WWW.P65Warnings.ca.gov</a>			
<b>crystalite (14464-46-1)</b>					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

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
calcium oxide (1305-78-8)	U.S. - New Jersey - Right to Know Hazardous Substance List
Cristobalite (14464-46-1)	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
Phenolic Resin (108-95-2)	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
Graphite (7782-42-5)	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 : 06/04/2021  
Other information : Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.

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Full text of H-phrases:

H314	Causes severe skin burns and eye damage
H350	May cause cancer

SDS US (GHS HazCom 2012)

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