

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixtures  
 Product name : Denspak  
 CAS No : Mixture  
 Product code : 3020  
 Other means of identification : Chrome Sand Ramming Mix

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

Use of the substance/mixture : Refractory

#### 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

Not classified

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

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning  
 Hazard statements (GHS-US) : H335 - May cause respiratory irritation from dust after drying.  
 H315 - Causes skin irritation  
 Precautionary statements (GHS-US) : P280 - Wear Dust respirator, protective gloves, eye protection  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P332+P313 - If skin irritation occurs: Get medical advice/attention  
 P337+P313 - If eye irritation persists: Get medical advice/attention

#### 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
Chrome Ore	(CAS No) 1308-31-2	75 - 95	Not classified
Olivine	(CAS No) 1317-71-1	5 - 10	Not classified
sodium silicate, alkaline 1.6/2.6, 35%<=conc<=55%, aqueous solutions	(CAS No) 1344-09-8	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2B, H320

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 after inhalation : Dust when sawing or tear out. Allow victim to breathe 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 : Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

# Denspak

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

Symptoms/injuries after inhalation : Coughing.

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

### 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 : Wear respiratory protection. Protective gloves. Safety glasses.  
Emergency procedures : Avoid contact with skin. Avoid contact with 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 : On land, sweep or shovel into suitable containers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.  
Wash skin thoroughly with mild soap and water.

### 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.  
Incompatible products : Strong acids. Chromic oxide may react with alkali at high temperatures under oxidizing conditions.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Chrome Ore (1308-31-2)

ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (Chromite ore processing (Chromate), as Cr; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Chromium, inorganic Cr III compounds; 0.5 mg/m <sup>3</sup> ; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
-------	--------------------------------	--

#### sodium silicate, alkaline 1.6/2.6, 35%<=conc<=55%, aqueous solutions (1344-09-8)

Not applicable

#### Olivine (1317-71-1)

Not applicable

### 8.2. Appropriate engineering controls

No additional information available

### 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 : Damp granular mixture.  
Color : Black  
Odor : None

# Denspak

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor threshold	: No data available
pH	: No data available
Melting point	: > 3000 °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)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: ≈ 2.6
Solubility	: Moderately soluble in 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

No additional information available

### 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 : Not classified

#### sodium silicate, alkaline 1.6/2.6, 35%<=conc<=55%, aqueous solutions (1344-09-8)

LD50 oral rat	> 2000 mg/kg (Rat)
---------------	--------------------

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

#### Chrome Ore (1308-31-2)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Coughing.

## SECTION 12: Ecological information

### 12.1. Toxicity

# Denspak

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>sodium silicate, alkaline 1.6/2.6, 35%≤conc≤55%, aqueous solutions (1344-09-8)</b>	
EC50 Daphnia 1	216 mg/l (EC50; 96 h)
LC50 fish 2	210 mg/l (LC50; 96 h)

### 12.2. Persistence and degradability

<b>Chrome Ore (1308-31-2)</b>	
Persistence and degradability	Biodegradability in water: no data available.

<b>sodium silicate, alkaline 1.6/2.6, 35%≤conc≤55%, aqueous solutions (1344-09-8)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### 12.3. Bioaccumulative potential

<b>Chrome Ore (1308-31-2)</b>	
Bioaccumulative potential	No bioaccumulation data available.

<b>sodium silicate, alkaline 1.6/2.6, 35%≤conc≤55%, aqueous solutions (1344-09-8)</b>	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.  
GWPmix comment : No known effects from this product.

## 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

### TDG

Not regulated

### Transport by sea

Not regulated

### Air transport

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

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:

Chrome Ore	CAS No 1308-31-2	75 - 95%
Olivine	CAS No 1317-71-1	5 - 10%

### 15.2. International regulations

#### CANADA

<b>Chrome Ore (1308-31-2)</b>	
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)	

<b>Olivine (1317-71-1)</b>	
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)	

### EU-Regulations

No additional information available

### National regulations

<b>Olivine (1317-71-1)</b>	
Exempt-Naturally Occurring Substances in accordance with 40 CFR 710.4(b)	

### 15.3. US State regulations

<b>Denspak (Mixture)</b>	
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.

# Denspak

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Chrome Ore (1308-31-2)

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.

### Chrome Ore (1308-31-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

## SECTION 16: Other information

Revision date : 01/16/2017

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

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.*