

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
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  
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 2	H319	Causes serious eye irritation
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	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) : H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

Precautionary statements (GHS US) : P280 - Wear Suitable respiratory equipment, 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.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
Do not breathe the dust.

#### 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
Transvaal 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

# Denspak

## Safety Data Sheet

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

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	: Allow affected person 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.

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

Symptoms/effects after inhalation : Cough.

#### 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	: In case of fire, all extinguishing media allowed.

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

Fire hazard : Non-flammable.

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

Firefighting instructions	: Fight fire from safe distance and protected location.
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

##### Denspak (Mixture)

No additional information available

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

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

ACGIH OEL TWA	0.05 mg/m <sup>3</sup> inhalable dust
---------------	---------------------------------------

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

No additional information available

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

No additional information available

# Denspak

## Safety Data Sheet

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

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountain with clean water. Provide adequate ventilation to minimize dust concentrations.

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

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Wear appropriate mask

## 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
Odor threshold	: No data available
pH	: > 10
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.
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

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

# Denspak

## Safety Data Sheet

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

### 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

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

LD50 oral rat > 2000 mg/kg (Rat, Oral)

Skin corrosion/irritation : Causes skin irritation.  
pH: > 10

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

pH 11 – 13

Serious eye damage/irritation : Causes serious eye irritation.  
pH: > 10

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

pH 11 – 13

Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : May cause respiratory irritation.  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects after inhalation : Cough.

### SECTION 12: Ecological information

#### 12.1. Toxicity

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

LC50 - Fish [1] 210 mg/l (96 h, Brachydanio rerio, Pure substance)

EC50 - Crustacea [1] 216 mg/l (96 h, Daphnia magna, Pure substance)

#### 12.2. Persistence and degradability

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

Persistence and degradability Not established.

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

Persistence and degradability Biodegradability: not applicable.

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

BOD (% of ThOD) Not applicable

#### 12.3. Bioaccumulative potential

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

Bioaccumulative potential No data available.

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

Bioaccumulative potential No bioaccumulation data available.

#### 12.4. Mobility in soil

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

Ecology - soil No data available.

#### sodium silicate, alkaline 1.6/2.6, 35%≤concentration≤55%, aqueous solutions (1344-09-8)

Ecology - soil No (test) data on mobility of the component(s) 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.

# Denspak

## Safety Data Sheet

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

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

#### Department of Transportation (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

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

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

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### 15.2. International regulations

##### CANADA

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

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

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

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

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

Exempt-Naturally Occurring Substances in accordance with 40 CFR 710.4(b)

#### 15.3. US State regulations

##### Denspak (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.
--	---

##### Transvaal 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.
--	---

Component	State or local regulations
Transvaal Chrome Ore (1308-31-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List

### SECTION 16: Other information

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

Revision date : 08/03/2022

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
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

Safety Data Sheet (SDS), USA

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.