

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

RHI Magnesita
One Robinson Plaza, Suite 300
6600 Steubenville Pike
Pittsburgh, PA, 15205
United States
T 412-494-4491

Resco_SDS.TDS@rhimagnesita.com - 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 dust.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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

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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.
Symptoms/effects after eye contact	: Causes serious eye burns.

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	: Not flammable.
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance.
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	: Protective gloves. Safety glasses. Dust on tear out. Wear appropriate mask.
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.
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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.
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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

Transvaal Chrome Ore (1308-31-2)

USA - ACGIH - Occupational Exposure Limits

ACGIH® TLV® TWA	0.05 mg/m³ inhalable dust
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8.2. Appropriate engineering controls

Appropriate engineering controls	: Emergency eye wash fountain with clean water. Dust on tear out. Provide adequate ventilation to minimize dust concentrations.
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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

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Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Dust on tear out. 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)	: Not 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

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

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sodium silicate, alkaline 1.6/2.6, 35%≤conc≤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%≤conc≤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%≤conc≤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.
Symptoms/effects after eye contact	: Causes serious eye burns.
SECTION 12: Ecological information	
12.1. Toxicity	
sodium silicate, alkaline 1.6/2.6, 35%≤conc≤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	
Denspak (Mixture)	
Persistence and degradability	Rapidly degradable
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%≤conc≤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
Olivine (1317-71-1)	
Persistence and degradability	Rapidly degradable
12.3. Bioaccumulative potential	
Transvaal Chrome Ore (1308-31-2)	
Bioaccumulative potential	No data available.
sodium silicate, alkaline 1.6/2.6, 35%≤conc≤55%, aqueous solutions (1344-09-8)	
Bioaccumulative potential	No bioaccumulation data available.

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12.4. Mobility in soil

Transvaal Chrome Ore (1308-31-2)

Ecology - soil	No data available.
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sodium silicate, alkaline 1.6/2.6, 35%≤conc≤55%, aqueous solutions (1344-09-8)

Ecology - soil	No data available.
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

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

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

Denspapak (Mixture)

U.S. - California - Proposition 65 - Other information	This product contains chromite (Cr ⁺³) which may in normal use, be converted chemically to a chromate (Cr ⁺⁶) hexavalent chrome, a chemical known to the State of California to cause cancer.
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Transvaal Chrome Ore (1308-31-2)

U.S. - California - Proposition 65 - Other information	This product contains chromite (Cr ⁺³) which may in normal use, be converted chemically to a chromate (Cr ⁺⁶) hexavalent chrome, a chemical known to the State of California to cause cancer.
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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
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SECTION 16: Other information

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Revision date : 7/16/2025
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 hazard classes and H-statements	
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

Safety Data Sheet (SDS), USA
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