

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Rescoram 20 CR
CAS-No. : Mixture
Product code : 0559
Other means of identification : Plastic/Ramming Mix Refractory

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
T 412-494-4491
SDS@RescoProducts.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 2B | H320 | Causes eye irritation |
| Carcinogenicity Category 1A | H350 | After drying May cause cancer (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) : H315 - Causes skin irritation
H320 - Causes eye irritation
H350 - After drying May cause cancer (Inhalation)

Precautionary statements (GHS US) : P280 - Wear eye protection, Dust respirator, protective gloves.
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.
P260 - 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 |
|---|---------------------|---------|-----------------------|
| aluminium oxide, non-fibrous | CAS-No.: 1344-28-1 | 50 – 75 | Not classified |
| chromium(III) oxide | CAS-No.: 1308-38-9 | 10 – 20 | Not classified |
| phosphoric acid, conc=75%, aqueous solution | CAS-No.: 7664-38-2 | 5 – 10 | Skin Corr. 1B, H314 |
| quartz | CAS-No.: 14808-60-7 | 0.5 – 1 | 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 | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Allow affected person to breathe fresh air. Allow the victim to rest. |
| 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. Do NOT induce vomiting. Obtain emergency medical attention. |

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

| | |
|---|---|
| Potential Adverse human health effects and symptoms | : Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. |
| Symptoms/effects after inhalation | : After drying or heating. Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes 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 | : 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. |
|-------------|------------------|

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire with normal precautions from a reasonable distance. Prevent fire-fighting water from entering environment. |
| 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

| | |
|----------------------|-------------------------------------|
| Emergency procedures | : Avoid contact with skin and eyes. |
|----------------------|-------------------------------------|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : On land, sweep or shovel into suitable containers. |

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|--|
| Methods for cleaning up | : On land, sweep or shovel into suitable containers. |
|-------------------------|--|

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. After drying Do not breathe dust. |
| 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 this product in a dry location where it can be protected from the elements. |
|--------------------|---|

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

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

USA - ACGIH - Occupational Exposure Limits

| | |
|---------------|-------------------------------------|
| ACGIH OEL TWA | 1 mg/m ³ respirable dust |
|---------------|-------------------------------------|

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phosphoric acid, conc=75%, aqueous solution (7664-38-2)

No additional information available

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

No additional information available

quartz (14808-60-7)

USA - ACGIH - Occupational Exposure Limits

| | |
|---------------|--|
| ACGIH OEL TWA | 0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |
|---------------|--|

USA - OSHA - Occupational Exposure Limits

| | |
|--------------------|---|
| Local name | Silica, crystalline quartz, respirable dust |
| OSHA PEL (TWA) [1] | 0.05 mg/m ³ respirable dust |
| Remark (OSHA) | (3) See Table Z-3. |

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountain with clean water.

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:

Dust when sawing or tear out. Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Solid |
| Appearance | : Plastic. |
| Color | : Green |
| Odor | : Acid Odor |
| Odor threshold | : No data available |
| pH | : < 3 |
| pH solution concentration | : 10 % |
| Melting point | : > 2500 °F |
| Freezing point | : ≈ 32 °F |
| 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 | : ≈ 2.7 |
| Solubility | : Slightly soluble. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : Not Applicable |
| 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

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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Not established.

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

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, 14 day(s)) |
| LC50 Inhalation - Rat | > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |

phosphoric acid, conc=75%, aqueous solution (7664-38-2)

| | |
|---------------|------------------------|
| ATE US (oral) | 4400 mg/kg body weight |
|---------------|------------------------|

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

| | |
|-----------------------|---|
| LD50 oral rat | > 5000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LC50 Inhalation - Rat | > 5.41 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |

Skin corrosion/irritation : Causes skin irritation.
pH: < 3

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

| | |
|----|-------------------------------------|
| pH | 9 – 10.5 (aqueous suspension, 33 %) |
|----|-------------------------------------|

phosphoric acid, conc=75%, aqueous solution (7664-38-2)

| | |
|----|-----------------|
| pH | 0 – 0.5 (20 °C) |
|----|-----------------|

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

| | |
|----|-------------------------------------|
| pH | No data available in the literature |
|----|-------------------------------------|

quartz (14808-60-7)

| | |
|----|-------|
| pH | 6 – 7 |
|----|-------|

Serious eye damage/irritation : Causes eye irritation.
pH: < 3

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

| | |
|----|-------------------------------------|
| pH | 9 – 10.5 (aqueous suspension, 33 %) |
|----|-------------------------------------|

phosphoric acid, conc=75%, aqueous solution (7664-38-2)

| | |
|----|-----------------|
| pH | 0 – 0.5 (20 °C) |
|----|-----------------|

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| chromium(III) oxide (1308-38-9) | |
|--|---|
| pH | No data available in the literature |
| quartz (14808-60-7) | |
| pH | 6 – 7 |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : After drying May cause cancer (Inhalation). |
| quartz (14808-60-7) | |
| IARC group | 1 - Carcinogenic to humans |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : Not Applicable |
| aluminium oxide, non-fibrous (1344-28-1) | |
| Viscosity, kinematic | Not applicable (solid) |
| chromium(III) oxide (1308-38-9) | |
| Viscosity, kinematic | Not applicable (solid) |
| Potential Adverse human health effects and symptoms | : Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. |
| Symptoms/effects after inhalation | : After drying or heating. Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes eye irritation. |
| SECTION 12: Ecological information | |
| 12.1. Toxicity | |
| aluminium oxide, non-fibrous (1344-28-1) | |
| LC50 - Fish [1] | > 100 mg/l (96 h, Salmo trutta, Literature study) |
| EC50 - Crustacea [1] | > 100 mg/l (48 h, Daphnia magna, Literature study) |
| chromium(III) oxide (1308-38-9) | |
| LC50 - Fish [1] | > 10000 mg/l (ISO 7346-1, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP) |
| 12.2. Persistence and degradability | |
| Rescoram 20 CR (Mixture) | |
| Persistence and degradability | Not established. |
| aluminium oxide, non-fibrous (1344-28-1) | |
| Persistence and degradability | Not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| phosphoric acid, conc=75%, aqueous solution (7664-38-2) | |
| Persistence and degradability | Biodegradability: not applicable. |
| chromium(III) oxide (1308-38-9) | |
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |
| quartz (14808-60-7) | |
| Persistence and degradability | Not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| 12.3. Bioaccumulative potential | |
| Rescoram 20 CR (Mixture) | |
| Bioaccumulative potential | Not established. |

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| | |
|--|--|
| aluminium oxide, non-fibrous (1344-28-1) | |
| Bioaccumulative potential | No data available. |
| phosphoric acid, conc=75%, aqueous solution (7664-38-2) | |
| Bioaccumulative potential | No test data of component(s) available. |
| chromium(III) oxide (1308-38-9) | |
| Bioaccumulative potential | Not bioaccumulative. |
| quartz (14808-60-7) | |
| Bioaccumulative potential | No data available. |
| 12.4. Mobility in soil | |
| aluminium oxide, non-fibrous (1344-28-1) | |
| Surface tension | No data available in the literature |
| Ecology - soil | No data available. |
| phosphoric acid, conc=75%, aqueous solution (7664-38-2) | |
| Ecology - soil | Highly mobile in soil. |
| chromium(III) oxide (1308-38-9) | |
| Surface tension | No data available in the literature |
| Ecology - soil | Adsorbs into the soil. |
| 12.5. Other adverse effects | |
| Effect on the global warming | : None known |
| Other information | : No other effects known. |
| SECTION 13: Disposal considerations | |
| 13.1. Disposal methods | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. 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 | |
| Rescoram 20 CR (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 present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory | |
| 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. |
| phosphoric acid, conc=75%, aqueous solution (7664-38-2) | |
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 5000 lb |
| chromium(III) oxide (1308-38-9) | |
| Subject to reporting requirements of United States SARA Section 313 | |

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15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

phosphoric acid, conc=75%, aqueous solution (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

Rescoram 20 CR (Mixture)

| | |
|--|--|
| U.S. - California - Proposition 65 - Other information | This product contains crystalline silica, a chemical known to the state of California to cause cancer. 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. For more information go to WWW.P65Warnings.ca.gov |
|--|--|

quartz (14808-60-7)

| 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 |
|---|---|
| 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 |
| phosphoric acid, conc=75%, aqueous solution (7664-38-2) | 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 |
| Quartz (14808-60-7) | U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

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Revision date : 8/15/2024

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 | |
|------------------------|---|
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H320 | Causes eye irritation |
| H350 | May cause cancer |

Safety Data Sheet (SDS), USA

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