

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Unicrete 90 ARS
 CAS-No. : Mixture
 Product code : 3152
 Other means of identification : Alumina Cement Bonded Castable

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 - 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 H315 Causes skin irritation
 Category 2
 Serious eye damage/eye irritation Category 2B H320 Causes eye irritation
 Carcinogenicity Category 1A H350 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 - 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)

Not applicable

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 |
| Calcium Aluminate Cement | (CAS-No.) 65997-16-2 | 5 - 10 | Skin Irrit. 2, H315 Eye Irrit. 2B, H320 |
| cristobalite | (CAS-No.) 14464-46-1 | 0.1 - 0.5 | Carc. 1A, H350 |

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 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 victim to breathe fresh air. Allow the victim to rest.

Unicrete 90 ARS

Safety Data Sheet

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

- 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. Get medical advice/attention if you feel unwell. Do not induce vomiting.

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

- Symptoms/effects after inhalation : May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through 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 : No unsuitable extinguishing media known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Non-flammable.
Reactivity : Hydraulic setting.

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 : Avoid creating or spreading dust.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

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

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. 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.
Incompatible products : Strong bases. Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | | |
|---|-------------------------------------|--|
| aluminium oxide, non-fibrous (1344-28-1) | | |
| Not applicable | | |
| Calcium Aluminate Cement (65997-16-2) | | |
| Not applicable | | |
| crystalite (14464-46-1) | | |
| ACGIH | ACGIH TWA (mg/m ³) | 0.025 mg/m ³ (Silica-Crystalline Cristobalite; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 0.05 mg/m ³ respirable dust |

8.2. Appropriate engineering controls

No additional information available

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

Unicrete 90 ARS

Safety Data Sheet

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

Respiratory protection:

Wear appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Solid |
| Appearance | : Granular mixture. |
| Color | : white |
| Odor | : odorless |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : > 2000 °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 | : No data available |
| Solubility | : Slightly soluble. |
| 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

Hydraulic setting.

10.2. Chemical stability

Stable under normal conditions.

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

| 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) |
| LC50 inhalation rat (mg/l) | 7.6 mg/l air (Equivalent or similar to OECD 403, 1 h, Rat, Male, Experimental value) |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes eye irritation. |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : May cause cancer (Inhalation). |
| crystalite (14464-46-1) | |
| IARC group | 1 - Carcinogenic to humans |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |

Unicrete 90 ARS

Safety Data Sheet

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

crystalobalite (14464-46-1)

| | | |
|--|---|--|
| Specific target organ toxicity – repeated exposure | : | Not classified |
| Aspiration hazard | : | Not classified |
| Symptoms/effects after inhalation | : | May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation. |
| Symptoms/effects after skin contact | : | Causes skin irritation. |
| Symptoms/effects after eye contact | : | Causes eye irritation. |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

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

| | |
|---------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable (inorganic) |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |

crystalobalite (14464-46-1)

| | |
|---------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

12.3. Bioaccumulative potential

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

| | |
|---------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |
|---------------------------|------------------------------------|

crystalobalite (14464-46-1)

| | |
|---------------------------|-------------------------|
| Bioaccumulative potential | No test data available. |
|---------------------------|-------------------------|

12.4. Mobility in soil

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

| | |
|----------------|--|
| Ecology - soil | No (test) data on mobility of the substance available. |
|----------------|--|

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Do not discharge into the sewer.

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

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

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

Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

Unicrete 90 ARS

Safety Data Sheet

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

15.3. US State regulations

| crystalite (14464-46-1) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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 | | |

| aluminium oxide, non-fibrous (1344-28-1) |
|--|
| U.S. - New Jersey - Right to Know Hazardous Substance List |

| crystalite (14464-46-1) |
|--|
| U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

Revision date : 11/13/2018
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 |
| H350 | May cause cancer |

SDS US (GHS HazCom 2012)

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