

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : EZ Est 60 G
 CAS-No. : Mixture
 Product code : 4393
 Other means of identification : Dry Additive for Gel Bonded Castable

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 - 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 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, protective gloves.
 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

Other hazards not contributing to the classification : This product contains a dust suppression admixture, that may give off smoke or fumes during initial heat up. These fumes include carbon monoxide, carbon dioxide, and hydrocarbons. Adequate ventilation and appropriate respiratory protection may be required.

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 | 10 – 20 | Not classified |
| quartz | (CAS-No.) 14808-60-7 | 1 – 5 | Carc. 1A, H350 |
| 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 : Remove person to fresh air and keep comfortable for breathing.
 First-aid measures after skin contact : Rinse with water.

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- 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.

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

- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
 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 : 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.
 Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
 Other information : This product contains a dust suppression admixture, that may give off smoke or fumes during initial heat up. These fumes include carbon monoxide, carbon dioxide, and hydrocarbons. Adequate ventilation and appropriate respiratory protection may be required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe dust.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
 Emergency procedures : Ventilate area.

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. Minimize generation of dust.

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 raising dust. 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 in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| EZ Est 60 G (Mixture) | |
| No additional information available | |
| aluminium oxide, non-fibrous (1344-28-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 1 mg/m ³ respirable dust |
| crystalite (14464-46-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 0.025 mg/m ³ respirable dust |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL (TWA) (mg/m ³) | 0.05 mg/m ³ respirable dust |
| quartz (14808-60-7) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |

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USA - OSHA - Occupational Exposure Limits

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

8.2. Appropriate engineering controls

Appropriate engineering controls : 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

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 | : Granular mixture. |
| Color | : Light gray |
| Odor | : earthy |
| Odor threshold | : Not applicable |
| pH | : No data available |
| Melting point | : > 3000 °F |
| Freezing point | : Not applicable |
| Boiling point | : Not applicable |
| Critical temperature | : Not applicable |
| Critical pressure | : Not applicable |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : Not applicable |
| Relative evaporation rate (ether=1) | : Not applicable |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : Not Applicable |
| Vapor pressure at 50 °C | : Not Applicable |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : Not Applicable |
| Explosion limits | : Not applicable |
| 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

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

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10.4. Conditions to avoid

Avoid dust formation.

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) |
| LC50 Inhalation - Rat | 7.6 mg/l air (Equivalent or similar to OECD 403, 1 h, Rat, Male, Experimental value, Inhalation (aerosol)) |

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).

| quartz (14808-60-7) | |
|----------------------------|----------------------------|
| IARC group | 1 - Carcinogenic to humans |

Reproductive toxicity : Not classified
 Specific target organ toxicity – single exposure : Not classified
 Specific target organ toxicity – repeated exposure : Not classified
 Aspiration hazard : Not classified
 Viscosity, kinematic : No data available
 Likely routes of exposure : Inhalation.
 Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
 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

| EZ Est 60 G (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 |
| crystalite (14464-46-1) | |
| Persistence and degradability | Mineral. Not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |
| 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

| EZ Est 60 G (Mixture) | |
|-------------------------------------------------|--------------------|
| Bioaccumulative potential | Not established. |
| aluminium oxide, non-fibrous (1344-28-1) | |
| Bioaccumulative potential | No data available. |

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| | |
|--------------------------------|--------------------|
| crystalite (14464-46-1) | |
| Bioaccumulative potential | No data available. |

| | |
|----------------------------|--------------------|
| quartz (14808-60-7) | |
| Bioaccumulative potential | No data available. |

12.4. Mobility in soil

| | |
|-------------------------------------------------|--------------------|
| aluminium oxide, non-fibrous (1344-28-1) | |
| Ecology - soil | No data available. |

| | |
|--------------------------------|--------------------|
| crystalite (14464-46-1) | |
| Ecology - soil | No data available. |

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.
 Ecology - waste materials : Avoid release to the environment.

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

EZ Est 60 G (Mixture)

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)

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.

15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

crystalite (14464-46-1)

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

EZ Est 60 G (Mixture)

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

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 | | |

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| 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 |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cristobalite (14464-46-1) | 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 |
| 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 |
| Quartz (14808-60-7) | U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

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Revision date : 10/14/2020

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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