

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 3/27/2019 Revision date: 1/23/2025 Supersedes: 2/14/2022

SECTION 1: Identification

1.1. Identification

Product form : Article

Product name : Uniform 60M Coarse Article

CAS-No. : Mixture Product code : 4533

Synonyms : Pre-Cast Refractory Shape

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Refractory Recommended use : Industrial use

1.3. Supplier

T 412-494-4491

Resco Products, Inc. One Robinson Plaza, Suite 300 6600 Steubenville Pike Pittsburgh, PA, 15205 United States

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

Not classified

2.2. GHS Label elements, including precautionary statements

This product meets the definition and criteria for an article according to OSHA 29 CFR 1910.1200 and the EU REACH 1907/2006 Article 3(3) regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Pre-cast shape may be heavy and cause pinch and drop hazards, use of gloves and safety

shoes should be considered.

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	5 – 10	Not classified
Calcium Aluminate Cement	CAS-No.: 65997-16-2	-	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
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 : 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 : Base

symptoms

: Based on available data, the classification criteria are not met.

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Symptoms/effects after inhalation : 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.

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. Do not breathe dust.

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

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 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

or it contains parameters	
cristobalite (14464-46-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m³ respirable dust
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	0.05 mg/m³ respirable dust
aluminium oxide, non-fibrous (1344-28-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 mg/m³ respirable dust
quartz (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m³ (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	0.05 mg/m³ respirable dust
Remark (OSHA)	(3) See Table Z-3.

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8.2. Appropriate engineering controls

Appropriate engineering controls : Dust on tear out. 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.

Skin and body protection:

Safety shoes. Wear suitable protective clothing

Respiratory protection:

Dust on 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 : Solid in various shapes.

Color : Light gray
Odor : odorless
Odor threshold : No data available

рΗ No data available 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 Insoluble in water. Partition coefficient n-octanol/water (Log Pow) No data available Auto-ignition temperature No data available No data available Decomposition temperature Viscosity, kinematic Not Applicable No data available Viscosity, dynamic **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

No additional information available

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Avoid dust formation.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

No additional information available

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SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral) : Acute toxicity (dermal) : Acute toxicity (inhalation) :	Not classified Not classified 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))
Skin corrosion/irritation :	Not classified
Calcium Aluminate Cement (65997-16-2)	
рН	≤ 13
cristobalite (14464-46-1)	
рН	6 – 7
aluminium oxide, non-fibrous (1344-28-1)	
рН	9 – 10.5 (aqueous suspension, 33 %)
quartz (14808-60-7)	
рН	6 – 7
Serious eye damage/irritation :	Not classified
Calcium Aluminate Cement (65997-16-2)	
рН	≤ 13
cristobalite (14464-46-1)	
рН	6-7
aluminium oxide, non-fibrous (1344-28-1)	
Н	9 – 10.5 (aqueous suspension, 33 %)
quartz (14808-60-7)	
рН	6 – 7
	Not classified
Germ cell mutagenicity : Carcinogenicity :	Not classified Not classified
quartz (14808-60-7)	TVOL Glassified
IARC group	1 - Carcinogenic to humans
,	Not classified
STOT-single exposure :	Not classified
STOT-repeated exposure : Aspiration hazard :	Not classified Not classified
Viscosity, kinematic :	Not Applicable
aluminium oxide, non-fibrous (1344-28-1)	
Viscosity, kinematic	Not applicable (solid)
Potential Adverse human health effects and symptoms :	Based on available data, the classification criteria are not met.
	Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after skin contact :	May cause cancer by inhalation. Causes skin irritation.
Symptoms/effects after eye contact :	Causes eye irritation.

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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)	
12.2. Persistence and degradability		
Uniform 60M Coarse Article (Mixture)		
Persistence and degradability	Not established.	
Calcium Aluminate Cement (65997-16-2)		
Persistence and degradability	Rapidly degradable	
cristobalite (14464-46-1)		
Persistence and degradability	Mineral, Not applicable.	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
aluminium oxide, non-fibrous (1344-28-1)		
Persistence and degradability	Not applicable.	
Chemical oxygen demand (COD)	Not applicable	
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		
Uniform 60M Coarse Article (Mixture)		
Bioaccumulative potential	Not established.	
cristobalite (14464-46-1)		
Bioaccumulative potential	No data available.	
aluminium oxide, non-fibrous (1344-28-1)		
Bioaccumulative potential	No data available.	
quartz (14808-60-7)		
Bioaccumulative potential	No data available.	
12.4. Mobility in soil		
cristobalite (14464-46-1)		
Ecology - soil	No data available.	
aluminium oxide, non-fibrous (1344-28-1)		
Surface tension	No data available in the literature	
Ecology - soil	No data available.	

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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

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

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

Not subject to reporting requirements of the United States SARA Section 313

Note: The section 3

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

Calcium Aluminate Cement (65997-16-2)

Listed on the Canadian DSL (Domestic Substances List)

cristobalite (14464-46-1)

Listed on the Canadian DSL (Domestic Substances List)

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

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

Uniform 60M Coarse Article (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

cristobalite (14464-46-1)

U.S California -	U.S California -	U.S California -	U.S California -	No significant risk	Maximum allowable
Proposition 65 -	Proposition 65 -	Proposition 65 -	Proposition 65 -	level (NSRL)	dose level (MADL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity	Reproductive Toxicity		
		- Female	- Male		
Yes	No	No	No		

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quartz (14808-60-7)					
U.S California - Proposition 65 - Carcinogens List	Proposition 65 -	Proposition 65 -		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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Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail. Other information

Full text of hazard classes and H-statements		
H315	Causes skin irritation	
H320	Causes eye irritation	
H350	May cause cancer	

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.