

### Safety Data Sheet

SECTION 1: Identification				
1.1. Identification				
Product form	: Article			
Product name	: Uniform 85LCXC			
CAS-No.	: Mixture			
Product code	: 3383			
Synonyms	: Pre-Cast Refractor	y Shape		
1.2. Recommended use and restrictions on				
Use of the substance/mixture Recommended use	: Refractory			
	: 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.c	<u>om</u>			
1.4. Emergency telephone number				
Emergency number		LY (CHEMTREC) USA & nada +1 703-741-5970	& Canada 1-80	0-424-9300
SECTION 2: Hazard(s) identification				
2.1. Classification of the substance or mixtu	ire			
GHS US classification				
Not classified				
2.2. GHS Label elements, including precauti	onary statements			
This product meets the definition and criteria for an a regulations.	rticle according to OSI	HA 29 CFR 1910.1200 a	ind the EU RE	ACH 1907/2006 Article 3(3)
2.3. Other hazards which do not result in cla	assification			
Other hazards which do not result in classification		y be heavy and cause p	inch and drop	hazards, use of gloves and safety
	shoes should be co			, , ,
2.4. Unknown acute toxicity (GHS US)				
No additional information available				
SECTION 3: Composition/Information o	n ingredients			
3.1. Substances				
Not applicable				
3.2. Mixtures				
		Product identifier	%	GHS US classification
3.2. Mixtures		Product identifier CAS-No.: 1344-28-1	<mark>%</mark> 50 – 75	GHS US classification Not classified
3.2. Mixtures Name			50 – 75	Not classified Skin Irrit. 2, H315
3.2. Mixtures           Name           aluminium oxide, non-fibrous           Calcium Aluminate Cement		CAS-No.: 1344-28-1 CAS-No.: 65997-16-2	50 – 75 1 – 5	Not classified Skin Irrit. 2, H315 Eye Irrit. 2B, H320
3.2. Mixtures           Name           aluminium oxide, non-fibrous           Calcium Aluminate Cement           cristobalite	ction 16	CAS-No.: 1344-28-1	50 – 75 1 – 5	Not classified Skin Irrit. 2, H315
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see		CAS-No.: 1344-28-1 CAS-No.: 65997-16-2	50 – 75 1 – 5	Not classified Skin Irrit. 2, H315 Eye Irrit. 2B, H320
3.2. Mixtures           Name           aluminium oxide, non-fibrous           Calcium Aluminate Cement           cristobalite	ction 16	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2	50 – 75 1 – 5	Not classified Skin Irrit. 2, H315 Eye Irrit. 2B, H320
3.2. Mixtures           Name           aluminium oxide, non-fibrous           Calcium Aluminate Cement           cristobalite           Full text of hazard classes and H-statements : see see	ction 16	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2	50 – 75 1 – 5	Not classified Skin Irrit. 2, H315 Eye Irrit. 2B, H320
3.2. Mixtures          Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures	: Never give anythin	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons	50 – 75 1 – 5 0.1 – 0.5	Not classified Skin Irrit. 2, H315 Eye Irrit. 2B, H320
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures         4.1. Description of first aid measures	: Never give anythin (show the label wh	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an unconsere possible).	50 – 75 1 – 5 0.1 – 0.5 scious person.	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air plenty of soap and water.	50 - 75 $1 - 5$ $0.1 - 0.5$ Sectors person. Allow the victir	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air plenty of soap and water. cautiously with water fo	50 - 75 $1 - 5$ $0.1 - 0.5$ Sectors person. Allow the victir	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see set         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after eye contact	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse and easy to do. Co</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air plenty of soap and water. cautiously with water fo ontinue rinsing.	50 - 75 $1 - 5$ $0.1 - 0.5$ Socious person. Allow the victir r several minu	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see set         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after eye contact         First-aid measures after ingestion	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse and easy to do. Co</li> <li>Rinse mouth. Do N</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air olenty of soap and water. cautiously with water fo pottinue rinsing. IOT induce vomiting. Ob	50 - 75 $1 - 5$ $0.1 - 0.5$ Socious person. Allow the victir r several minu	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
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3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after eye contact         First-aid measures after ingestion         4.2. Most important symptoms and effects (Potential Adverse human health effects and	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse and easy to do. Co</li> <li>Rinse mouth. Do N</li> <li>acute and delayed</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air olenty of soap and water. cautiously with water fo pottinue rinsing. IOT induce vomiting. Ob	50 - 75 $1 - 5$ $0.1 - 0.5$ Scious person. Allow the victir r several minutiation emergence	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350         If you feel unwell, seek medical advice         n to rest.         es. Remove contact lenses, if present         y medical attention.
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see set         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after eye contact         First-aid measures after ingestion         4.2. Most important symptoms and effects (Potential Adverse human health effects and symptoms	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse and easy to do. Co</li> <li>Rinse mouth. Do N</li> <li>acute and delayed</li> <li>Based on available</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air blenty of soap and water. cautiously with water fo ontinue rinsing. IOT induce vomiting. Ob be data, the classification	50 - 75 1 - 5 0.1 - 0.5 accious person. Allow the victir r several minu- tain emergence criteria are not	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350
3.2. Mixtures         Name         aluminium oxide, non-fibrous         Calcium Aluminate Cement         cristobalite         Full text of hazard classes and H-statements : see see         SECTION 4: First-aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after eye contact         First-aid measures after ingestion         4.2. Most important symptoms and effects (Potential Adverse human health effects and	<ul> <li>Never give anythin (show the label wh</li> <li>Allow affected pers</li> <li>Gently wash with p</li> <li>IF IN EYES: Rinse and easy to do. Co</li> <li>Rinse mouth. Do N</li> <li>acute and delayed</li> <li>Based on available</li> </ul>	CAS-No.: 1344-28-1 CAS-No.: 65997-16-2 CAS-No.: 14464-46-1 CAS-No.: 14464-46-1 g by mouth to an uncons ere possible). son to breathe fresh air olenty of soap and water. cautiously with water fo ontinue rinsing. IOT induce vomiting. Ob De data, the classification damage to health by pro	50 - 75 1 - 5 0.1 - 0.5 accious person. Allow the victir r several minu- tain emergence criteria are not	Not classified         Skin Irrit. 2, H315         Eye Irrit. 2B, H320         Carc. 1A, H350         If you feel unwell, seek medical advice         n to rest.         es. Remove contact lenses, if present         y medical attention.

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Symptoms/effects after skin contact Symptoms/effects after eye contact	<ul><li>Causes skin irritation.</li><li>Causes eye irritation.</li></ul>
4.3. Immediate medical attention and specia	
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 5.2. Specific hazards arising from the chem	: In case of fire, all extinguishing media allowed.
Fire hazard	: Not flammable.
5.3. Special protective equipment and preca	
Firefighting instructions	: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering
Protection during firefighting	environment. : Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release measure	
6.1. Personal precautions, protective equip	ment 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 a	and cleaning up
For containment Methods for cleaning up	<ul> <li>Collect spillage.</li> <li>On land, sweep or shovel into suitable containers. Minimize generation of dust.</li> </ul>
6.4. Reference to other sections	
See Heading 8. Exposure controls and personal prote	ection.
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 a	
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/persona	al protection
8.1. Control parameters	
Uniform 85LCXC (Mixture)	
No additional information available	
Calcium Aluminate Cement (65997-16-2) No additional information available	
cristobalite (14464-46-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m <sup>3</sup> respirable dust
USA - OSHA - Occupational Exposure Limits OSHA PEL (TWA) [1]	0.05 mg/m <sup>3</sup> respirable dust
aluminium oxide, non-fibrous (1344-28-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 mg/m <sup>3</sup> respirable dust
8.2. Appropriate engineering controls	
Appropriate engineering controls	: Dust on tear out. Provide adequate ventilation to minimize dust concentrations.
8.3. Individual protection measures/Persona	al protective equipment
Personal protective equipment: Avoid all unnecessary exposure.	

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Hand protection:		
Wear protective gloves.		
Skin and body protection:		
Wear suitable protective clothing. Safety shoes		
Respiratory protection:		
Dust on tear out. Wear appropriate mask		
Other information: Do not eat, drink or smoke during use. SECTION 9: Physical and chemical prop		
9.1. Information on basic physical and chem		
Physical state Appearance Color Odor Odor threshold pH Melting point Freezing point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C Relative density Solubility Partition coefficient n-octanol/water (Log Pow) Auto-ignition temperature Decomposition temperature Viscosity, kinematic Viscosity, dynamic Explosion limits Explosive properties Oxidizing properties	<ul> <li>Solid</li> <li>Solid in various shapes.</li> <li>Light gray</li> <li>odorless</li> <li>No data available</li> <li>No data available</li> <li>No data available</li> <li>&gt; 2500 °F</li> <li>No data available</li> </ul>	
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		
SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	<ul> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> </ul>	

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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 %)
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)	
рН	9 – 10.5 (aqueous suspension, 33 %)
Respiratory or skin sensitization:Germ cell mutagenicity:Carcinogenicity:Reproductive toxicity:STOT-single exposure:STOT-repeated exposure:Aspiration hazard:Viscosity, kinematic:	Not classified Not classified Not classified Not classified Not classified Not classified Not classified Not classified Not classified
aluminium oxide, non-fibrous (1344-28-1)	
Viscosity, kinematic	Not applicable (solid)
Potential Adverse human health effects and symptoms       :         Symptoms/effects after inhalation       :         Symptoms/effects after skin contact       :	Based on available data, the classification criteria are not met. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation. 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] EC50 - Crustacea [1]	<ul> <li>&gt; 100 mg/l (96 h, Salmo trutta, Literature study)</li> <li>&gt; 100 mg/l (48 h, Daphnia magna, Literature study)</li> </ul>
12.2. Persistence and degradability	
Uniform 85LCXC (Mixture)	
Persistence and degradability	Not established.
cristobalite (14464-46-1) Persistence and degradability	Mineral Not applicable
Chemical oxygen demand (COD)	Mineral. Not applicable. Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
aluminium oxide, non-fibrous (1344-28-1)	Not applicable
Persistence and degradability Chemical oxygen demand (COD)	Not applicable. Not applicable
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aluminium oxide, non-fibrous (1344-28-1)	
ThOD	Not applicable
12.3. Bioaccumulative potential	
Uniform 85LCXC (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.
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.
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 Ecology - waste materials	<ul> <li>Dispose in a safe manner in accordance with local/national regulations.</li> <li>Avoid release to the environment.</li> </ul>
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 (TSCA) inventory	as Active on the United States Environmental Protection Agency Toxic Substances Control Act
aluminium oxide, non-fibrous (1344-28-1)	
Not subject to reporting requirements of the United St	
	section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the
	oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only ring, 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 L	ist)
cristobalite (14464-46-1)	
Listed on the Canadian DSL (Domestic Substances L	ist)
aluminium oxide, non-fibrous (1344-28-1)	
Listed on the Canadian DSL (Domestic Substances L	ist)
EU-Regulations	
No additional information available	
National regulations No additional information available	

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

15.3. US State regulations	
Uniform 85LCXC (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		

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

#### **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Other information : Report language name. English. In the eve

: 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-ph	rases
H315	Causes skin irritation
H320	Causes eye irritation
H350	May cause cancer
Cofety Data Char	

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.