

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 12/10/2020 Revision date: 22/8/2023 Supersedes version of: 12/10/2020 Version: 2.1

SECTION 1: Identification of the substan	ce/mixture and of the company/undertaking
1.1. Product identifier	
Product form : Product name : UFI : CAS-No. : Product code : Product group : Other means of identification :	Mixture Rescobond AA-22S ECX0-E0R8-M00G-9CV5 Mixture 0342 Finished Good Alumina-Silicate Chemically Bonded Castable
1.2. Relevant identified uses of the substance	
Function or use category : 1.2.2. Uses advised against No additional information available	Industrial use Refractory
1.3. Details of the supplier of the safety data	sheet
Resco Products (UK) Limited Newbold Works, Melbourne Road, Lount LE65 1PL Ashby-de-la-Zouch England T 44 (0) 1530 222694 <u>UK.SDS@RescoProducts.com</u> - <u>www.RescoProducts.</u>	<u>com</u>
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: Hazards identification	
2.1. Classification of the substance or mixtur	e
Classification according to Regulation (EC) No. 127 Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category 2 Specific target organ toxicity – Repeated exposure, Ca Full text of H- and EUH-statements: see section 16 Adverse physicochemical, human health and envir This product contains Quartz (Fine Fraction) between 0 1272/2008 and does not meet the criteria for classificat	H315 H319 tegory 2 H373 onmental effects 0.1 to 10% and is classified as STOT RE 2 according to criteria defined in the Regulation EC
2.2. Label elements	Ŭ
Labelling according to Regulation (EC) No. 1272/20 Hazard pictograms (CLP)	08 [CLP] GHS07 GHS08
Signal word (CLP) : Hazard statements (CLP) :	Warning H315 - Causes skin irritation. H319 - Causes serious eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP) :	 P260 - Do not breathe dust. P280 - Wear • Respiratory protection, eye protection, protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 - Get medical advice/attention if you feel unwell.
2.3. Other hazards	
Other hazards which do not result in classification : Contains no PBT/vPvB substances ≥ 0.1% assessed in	Irritating to eyes and skin. accordance with REACH Annex XIII
Component	
aluminium oxide, non-fibrous (1344-28-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Magnesium Oxide (1309-48-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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cristobalite EU (14464-46-1)	This substance/mixture do	es not meet the	PBT criteria of REACH regulation, annex XIII vPvB criteria of REACH regulation, annex XIII
The mixture does not contain substance(s) include properties, or is not identified as having endocrine (EU) 2017/2100 or Commission Regulation (EU) 2	disrupting properties in accordar	nce with the crite	ria set out in Commission Delegated Regulation
SECTION 3: Composition/information	n on ingredients		
3.1. Substances			
Not applicable			
3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
aluminium oxide, non-fibrous	CAS-No.: 1344-28-1 EC-No.: 215-691-6	50 – 75	Not classified
Mono-Magnesium Phosphate	CAS-No.: 13092-66-5	5 – 10	Not classified
Magnesium Oxide	CAS-No.: 1309-48-4 EC-No.: 215-171-9	1 – 5	Not classified
quartz, 1%≤conc respirable crystalline silica<10%		1 – 5	STOT RE 1, H372
cristobalite EU	CAS-No.: 14464-46-1 EC-No.: 238-455-4	0.1 – 0.5	STOT RE 2, H373
Full text of H- and EUH-statements: see section 1			
SECTION 4: First aid measures			
4.1. Description of first aid measures			
First-aid measures general			scious person. If you feel unwell, seek medical
First-aid measures after inhalation First-aid measures after skin contact	advice (show the label whe : Allow affected person to bu : Gently wash with plenty of	eathe fresh air. soap and water.	
First-aid measures after eye contact	: IF IN EYES: Rinse cautiou present and easy to do. Co		r several minutes. Remove contact lenses, if
First-aid measures after ingestion	: Rinse mouth. Do NOT indu	ice vomiting. Ob	tain emergency medical attention.
4.2. Most important symptoms and effect	s, both acute and delayed		
Symptoms/effects after inhalation	exposure through inhalatio		serious damage to health by prolonged
Symptoms/effects after skin contact Symptoms/effects after eye contact	Causes skin irritation.Causes eye irritation.		
4.3. Indication of any immediate medical	attention and special treatn	nent needed	
No additional information available			
SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media	: Use extinguishing media a		
Unsuitable extinguishing media	: In case of fire, all extinguis	hing media allow	ved.
5.2. Special hazards arising from the sub			
Fire hazard	: Not flammable.		
5.3. Advice for firefighters			
Firefighting instructions	the environment.		al fire. Prevent fire fighting water from entering
Protection during firefighting		out proper protec	ctive equipment, including respiratory protection.
SECTION 6: Accidental release meas	ures		
6.1. Personal precautions, protective equ	ipment and emergency pro	cedures	
6.1.1. For non-emergency personnel	. Do not brootho duct Avoid	contract with ald	
Emergency procedures 6.1.2. For emergency responders	: Do not breathe dust. Avoid	CONTACT WITH SKI	n and eyes.
Protective equipment	: Equip cleanup crew with p		
Emergency procedures	: Ventilate area. On land, sv	veep or shovel in	
6.2. Environmental precautions			
Prevent entry to sewers and public waters.	at and alogning up		
6.3. Methods and material for containmen	- · ·	nto quitable	toinore Minimine generation of dust
Methods for cleaning up 6.4. Reference to other sections	. On land, sweep or shovel	nio sultable con	tainers. Minimise generation of dust.
See Section 8. Exposure controls and personal pr	otection		
See Section 6. Exposure controls and personal pr			

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SECTION 7: Handling and storage	
7.1. 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. 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	
	Store this product in a dry location where it can be protected from the elements.
Incompatible products	Strong bases. Strong acids.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/persona	l protection
8.1. Control parameters	
8.1.1 National occupational exposure and biologic	al limit values
aluminium oxide, non-fibrous (1344-28-1)	
Belgium - Occupational Exposure Limits	4
OEL TWA France - Occupational Exposure Limits	1 mg/m ³
VME (OEL TWA)	10 mg/m ³
United Kingdom - Occupational Exposure Limits	10
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 mg/m ³ respirable dust
Magnesium Oxide (1309-48-4)	
Belgium - Occupational Exposure Limits OEL TWA	10 mg/m ³
France - Occupational Exposure Limits	
VME (OEL TWA)	10 mg/m ³
United Kingdom - Occupational Exposure Limits	10
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m ³ inhalable dust
quartz, 1%≤conc respirable crystalline silicat	
EU - Indicative Occupational Exposure Limit (IOEL IOEL TWA	0.1 mg/m ³ (Respirable fraction)
Belgium - Occupational Exposure Limits	
OEL TWA	0.1 mg/m ³
France - Occupational Exposure Limits VME (OEL TWA)	0.1 mg/m ³ (La valeur limite concerne la fraction alvéolaire)
Netherlands - Occupational Exposure Limits	
TGG-8u (OEL TWA)	0.075 mg/m ³ (respirabele fractie)
United Kingdom - Occupational Exposure Limits	0.4 mp/m3
WEL TWA (OEL TWA) [1] USA - ACGIH - Occupational Exposure Limits	0.1 mg/m ³
ACGIH OEL TWA	0.025 mg/m ³ (Respirable fraction)
cristobalite EU (14464-46-1)	
Belgium - Occupational Exposure Limits	
OEL TWA France - Occupational Exposure Limits	0.05 mg/m ³
VME (OEL TWA)	0.05 mg/m ³ (La valeur limite concerne la fraction alvéolaire)
Netherlands - Occupational Exposure Limits	, , , , , , , , , , , , , , , , , , , ,
TGG-8u (OEL TWA)	0.075 mg/m ³ (respirabele fractie)
United Kingdom - Occupational Exposure Limits WEL TWA (OEL TWA) [1]	0.1 mg/m ³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m ³ (Respirable fraction)
8.1.2. Recommended monitoring procedures No additional information available	
8.1.3. Air contaminants formed	
No additional information available	
8.1.4. DNEL and PNEC No additional information available	
8.1.5. Control banding	
No additional information available	

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8.2. Exposure controls	
8.2.1. Appropriate engineering controls	
Appropriate engineering controls:	
Provide adequate ventilation to minimize dust concen	trations.
8.2.2. Personal protection equipment	
Personal protective equipment: Avoid all unnecessary exposure.	
8.2.2.1. Eye and face protection	
Eye protection:	
Chemical goggles or safety glasses	
8.2.2.2. Skin protection	
Skin and body protection:	
Wear suitable protective clothing	
Hand protection:	
Wear protective gloves.	
8.2.2.3. Respiratory protection	
Respiratory protection: Wear appropriate mask	
8.2.2.4. Thermal hazards	
No additional information available	
8.2.3. Environmental exposure controls	
Other information:	
Do not eat, drink or smoke during use.	
SECTION 9: Physical and chemical prop	perties
9.1. Information on basic physical and chem	
Physical state	: Solid
Colour	: Light grey.
Appearance	: Granular mixture.
Odour	: Acid Odor.
Odour threshold	: Not available
Melting point	: > 1100 °C
Freezing point	: Not available
Boiling point Flammability	: Not available : Not flammable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
рН	: ≈5.4
pH solution	: 10%
Viscosity, kinematic Solubility	: Not Applicable : Slightly soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: ≈2.7
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
9.2. Other information	
9.2.1. Information with regard to physical hazard of	lasses
No additional information available	
9.2.2. Other safety characteristics	
No additional information available	
SECTION 10: Stability and reactivity	
10.1. Reactivity	
Hydraulic setting.	
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 hazard classes as define	d in Regulation (EC) No 1272/2008
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 bodyweight (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))
Magnesium Oxide (1309-48-4)	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit, Literature study, Dermal)
Skin corrosion/irritation:Additional information:	Causes skin irritation. Causes skin irritation.
aluminium oxide, non-fibrous (1344-28-1)	
рН	9 – 10.5 (aqueous suspension, 33 %)
Magnesium Oxide (1309-48-4)	
рН	11 (10 %)
quartz, 1%≤conc respirable crystalline silica<	10% (14808-60-7)
рН	6 – 7
cristobalite EU (14464-46-1)	·
рН	6 – 7
Serious eye damage/irritation :	Causes serious eye irritation.
aluminium oxide, non-fibrous (1344-28-1)	
рН	9 – 10.5 (aqueous suspension, 33 %)
Magnesium Oxide (1309-48-4)	
рН	11 (10 %)
quartz, 1%≤conc respirable crystalline silica<	10% (14808-60-7)
рН	6 – 7
cristobalite EU (14464-46-1)	
рН	6 – 7
Respiratory or skin sensitisation :	Not classified
Germ cell mutagenicity :	Not classified
Carcinogenicity : Reproductive toxicity :	Not classified Not classified
STOT-single exposure :	Not classified
STOT-repeated exposure :	May cause damage to organs through prolonged or repeated exposure.
quartz, 1%≤conc respirable crystalline silica<	10% (14808-60-7)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure (if inhaled).
cristobalite EU (14464-46-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure (if inhaled).
	Not classified
Rescobond AA-22S (Mixture)	
Viscosity, kinematic	Not Applicable
aluminium oxide, non-fibrous (1344-28-1)	
Viscosity, kinematic	Not applicable (solid)

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Magnesium Oxide (1309-48-4)	
Viscosity, kinematic	Not applicable (solid)
quartz, 1%≤conc respirable crystalline silica<	:10% (14808-60-7)
Viscosity, kinematic	Not applicable (solid)
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties No additional information available 11.2.2. Other information Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met
SECTION 12: Ecological information	
12.1. Toxicity	
Hazardous to the aquatic environment, short-term : (acute)	Not classified
Hazardous to the aquatic environment, long-term : (chronic)	Not classified
aluminium oxide, non-fibrous (1344-28-1)	> 100 mg/l (96 h, Salmo trutta, Literature study)
LC50 - Fish [1] EC50 - Crustacea [1]	> 100 mg/l (48 h, Daphnia magna, Literature study)
12.2. Persistence and degradability	
Rescobond AA-22S (Mixture)	
Persistence and degradability	Not established.
aluminium oxide, non-fibrous (1344-28-1)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD) ThOD	Not applicable
	Not applicable
Magnesium Oxide (1309-48-4) Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
quartz, 1%≤conc respirable crystalline silica<	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
cristobalite EU (14464-46-1)	
Persistence and degradability Chemical oxygen demand (COD)	Biodegradability: not applicable. Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3. Bioaccumulative potential	
Rescobond AA-22S (Mixture)	
Bioaccumulative potential	Not established.
aluminium oxide, non-fibrous (1344-28-1)	·
Bioaccumulative potential	No data available.
Magnesium Oxide (1309-48-4)	
Bioaccumulative potential	No bioaccumulation data available.
quartz, 1%≤conc respirable crystalline silica<	
Bioaccumulative potential	No bioaccumulation data available.
cristobalite EU (14464-46-1)	
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.
Magnesium Oxide (1309-48-4)	Ne date evaluable in the literature
Surface tension Ecology - soil	No data available in the literature No data available.
quartz, 1%≤conc respirable crystalline silica<	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

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cristobalite EU (14464-46-1)	
Ecology - soil	No data available.
12.5. Results of PBT and vPvB assessment	
Component	
aluminium oxide, non-fibrous (1344-28-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Magnesium Oxide (1309-48-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
quartz, 1%≤conc respirable crystalline silica<10%	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
(14808-60-7) cristobalite EU (14464-46-1)	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
12.6. Endocrine disrupting properties	
No additional information available	
12.7. Other adverse effects	
No additional information available	
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials HP Code	 Avoid release to the environment. HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
SECTION 14: Transport information	
In accordance with ADR / IMDG / IATA / RID	
14.1. UN number or ID number	
Not regulated for transport	
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	: Not regulated : Not regulated
Proper Shipping Name (RID)	: Not regulated
14.3. Transport hazard class(es)	
ADR Transport hazard class(es) (ADR)	: Not regulated
IMDG Transport hazard class(es) (IMDG) IATA	: Not regulated
Transport hazard class(es) (IATA)	: Not regulated
Transport hazard class(es) (RID)	: Not regulated
14.4. Packing group	
Packing group (ADR)	: Not regulated
Packing group (IMDG) Packing group (IATA)	: Not regulated : Not regulated
Packing group (RID)	: Not regulated
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
Overland transport Not regulated	
Transport by sea	
Not regulated Air transport	
Not regulated	
Rail transport	
Not regulated	
14.7. Maritime transport in bulk according to	D IMO Instruments
Not applicable	
SECTION 15: Regulatory information	
15.1. Safety, health and environmental regu	lations/legislation specific for the substance or mixture
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15.1.1. EU-Regulations

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REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors) Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances) 15.1.2. National regulations

France

Occupational diseases		
Code Des	escription	
	Diseases resulting from the inhalation of mineral dust containing crystalline silica (quartz, cristobalite, tridymite), crystalline silicates (kaolin, talc), graphite or coal.	
Germany		
Employment restrictions		: Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)		: Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV).
Hazardous Incident Ordinance (Netherlands	(12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
SZW-lijst van kankerverwekkend	de stoffen	: cristobalite,quartz are listed
SZW-lijst van mutagene stoffen		: None of the components are listed
SZW-lijst van reprotoxische stoff	ffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoff Vruchtbaarheid	ifen –	: None of the components are listed
SZW-lijst van reprotoxische stoff Denmark	ífen – Ontwikkeling	: None of the components are listed
Danish National Regulations		: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal
15.2. Chemical safety asse	essment	

No chemical safety assessment has been carried out **SECTION 16: Other information**

Other information

Report language name. English. In the event of any conflict between the English and other : language versions, the English version shall prevail. Full text of H- and EUH-statements: H315 Causes skin irritation.

H319	Causes serious eye irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

Although reasonable care has been taken in the preparation of the information contained herein, Resco extends no warranties, makes no representation and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.