



Rescobond 90A G

Safety Data Sheet

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

Issue date: 07/12/2021

Revision date: 07/12/2021

Supersedes: 07/31/2018

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Rescobond 90A G
CAS-No. : Mixture
Product code : 8895
Other means of identification : Alumina-Silicate Chemically 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) :

Hazard statements (GHS US) :

: Danger
: 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	75 – 95	Not classified
Mono-Magnesium Phosphate	(CAS-No.) 13092-66-5	5 – 10	Not classified
barium sulfate	(CAS-No.) 7727-43-7	1 – 5	Not classified
Magnesium Oxide	(CAS-No.) 1309-48-4	1 – 5	Not classified
quartz	(CAS-No.) 14808-60-7	0.5 – 1	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).

Rescobond 90A G

Safety Data Sheet

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

- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse.
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 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 : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
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 : 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

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- 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 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

Rescobond 90A 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
Magnesium Oxide (1309-48-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	10 mg/m ³ inhalable dust
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (mg/m ³)	10 mg/m ³ respirable dust
Mono-Magnesium Phosphate (13092-66-5)	
No additional information available	

Rescobond 90A G

Safety Data Sheet

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

barium sulfate (7727-43-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	5 mg/m ³ (Inhalable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica)
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)
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	: white
Odor	: Acid Odor
Odor threshold	: Not applicable
pH	: No data available
Melting point	: > 2000 °F
Freezing point	: Not applicable
Boiling point	: Not applicable
Critical temperature	: 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	: No data available
Vapor pressure at 50 °C	: Not Applicable
Relative vapor density at 20 °C	: No data available
Relative density	: ≈ 2.8
Solubility	: Slightly soluble.
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	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

Rescobond 90A G

Safety Data Sheet

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

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

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))

Magnesium Oxide (1309-48-4)	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit, Literature study, Dermal)

barium sulfate (7727-43-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
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
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
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

barium sulfate (7727-43-7)	
EC50 Daphnia 1	32 mg/l (48 h, Daphnia magna, Barium ion)

12.2. Persistence and degradability

Rescobond 90A 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

Magnesium Oxide (1309-48-4)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

Rescobond 90A G

Safety Data Sheet

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

barium sulfate (7727-43-7)	
Persistence and degradability	Biodegradability: 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

Rescobond 90A G (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.

barium sulfate (7727-43-7)	
BCF fish 1	68.4 (Lepomis macrochirus, Fresh water, Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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.

Magnesium Oxide (1309-48-4)	
Ecology - soil	No data available.

barium sulfate (7727-43-7)	
Ecology - soil	No (test) data on mobility of the substance available.

12.5. Other adverse effects

Effect on the global warming None 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

Rescobond 90A G (Mixture)	
----------------------------------	--

All components of this product are listed as Active, 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.

Rescobond 90A G

Safety Data Sheet

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

15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

Magnesium Oxide (1309-48-4)

Listed on the Canadian DSL (Domestic Substances List)

Mono-Magnesium Phosphate (13092-66-5)

Listed on the Canadian NDSL (Non-Domestic Substances List)

barium sulfate (7727-43-7)

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

Rescobond 90A 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

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
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
Magnesium Oxide (1309-48-4)	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
barium sulfate (7727-43-7)	U.S. - New Jersey - Right to Know Hazardous Substance List
Quartz (14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

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

Revision date : 07/12/2021

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)

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.