

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 01/24/2014

Version 2

Reviewed on 01/24/2014

1 Identification of the substance/mixture and of the company/undertaking

Product identifier Powercrete R65/F1-C Part B

Trade name: Powercrete R65/F1-C Part B

Relevant identified uses of the substance or mixture and uses advised against

Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Application of the substance / the mixture Epoxy curing agent

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Seal For Life Industries LLC - Powercrete
25 Forge Parkway, Franklin, MA, 02038 USA

Tel. (+1) 508-918-1600, Fax. (+1) 508-918-1905, Email: franklin@sealforlife.com

Information department: Product safety department of manufacturer / supplier

Emergency telephone number:

For emergency assistance - Contact Chemtrec (24 hours):

Call (800) 424 9300 in USA or Call (703) 527 3887 outside of USA (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



C; Corrosive

R35: Causes severe burns.



Xn; Harmful

R20: Harmful by inhalation.



Xi; Irritant

R37-42/43: Irritating to respiratory system. May cause sensitisation by inhalation and skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of international guidelines.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

- Alkyl phenol (Proprietary)
- 4-nonylphenol, branched
- Alkyl ether amine (Proprietary)
- Aliphatic amine (Proprietary)

Hazard statements

- Harmful if inhaled.
- Causes severe skin burns and eye damage.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
- Harmful to aquatic life with long lasting effects.

Precautionary statements

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER/doctor/...
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 3
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *3
Fire = 1
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

- PBT:** Not available.
- vPvB:** Not available.

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3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
7727-43-7	barium sulphate, natural	25-50%
	Alkyl phenol (Proprietary) ☠ T R23; ☠ C R35; ☠ Xn R21/22-48/20/21/22; ☠ Xi R37-41-42/43 R67 ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335-H336	2.5-10%
	Alkyl ether amine (Proprietary) ☠ T R23; ☠ C R35; ☠ Xn R21/22-48/20/21/22; ☠ Xi R37-41-42/43 R67 ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; STOT RE 2, H373; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335-H336	2.5-10%
	Aliphatic amine (Proprietary) ☠ T R23; ☠ C R35; ☠ Xn R21/22-48/20/21/22; ☠ Xi R37-41-42/43 R67 ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335-H336	2.5-10%
84852-15-3	4-nonylphenol, branched ☠ C R34; ☠ Xn R22-62-63; ☠ N R50/53 Repr. Cat. 3 ⚠ Repr. 2, H361; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	≤ 2.5%
	Alkyl amine (Proprietary) ☠ T R23; ☠ C R35; ☠ Xn R21/22-48/20/21/22; ☠ Xi R37-41-42/43 R67 ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335-H336	≤ 2.5%
12001-26-2	Mica	≤ 2.5%

SVHC None.

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Call a doctor immediately.

Take affected persons into fresh air and keep quiet.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air or oxygen; call for doctor.

After skin contact:

Call a doctor immediately.

Immediately rinse with water.

Remove contaminated clothing

After eye contact:

Call a doctor immediately.

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Rinse opened eye for several minutes under running water.

Remove any contact lenses

After swallowing:

Call a doctor immediately.

Do not induce vomiting

Rinse mouth with water

Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing

Most important symptoms and effects, both acute and delayed

Nausea

Cramp

Gastric or intestinal disorders

Dizziness

Dizziness

Disorientation

Unconsciousness

Headache

Breathing difficulty

Coughing

Asthma attacks

Allergic reactions

Indication of any immediate medical attention and special treatment needed

Medical supervision for at least 48 hours.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

Water haze

Foam

Fire-extinguishing powder

Carbon dioxide

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Mount respiratory protective device.

Wear protective clothing.

Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to penetrate the ground/soil.

In case of seepage into the ground inform responsible authorities.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

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Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Precautions for safe handling

Ensure appropriate ventilation/exhaust at the workplace.

At all times avoid inhalation of the product and contact with skin and eyes

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Provide floor trough without outlet.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Keep receptacle tightly sealed.

Store in a dry, cool, well ventilated place

Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

7727-43-7 barium sulphate, natural

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: (10) NIC-5* mg/m ³ *inhalable fraction

Aliphatic amine (Proprietary)

ACGIH TLV	Short-term value: 0.1 mg/m ³ (1994-09-01) Ceiling Limit Value
NIOSH REL	Short-term value: 0.1 mg/m ³ (1994-06-01) Ceiling Limit Value
OSHA PEL	Short-term value: 0.1 mg/m ³ (1989-03-01) Ceiling Limit Value

12001-26-2 Mica

PEL	Long-term value: 20 mppcf ppm <1% crystalline silica
REL	Long-term value: 3* mg/m ³ *respirable dust; containing < 1% quartz
TLV	Long-term value: 3* mg/m ³ *as respirable fraction

Additional information: The lists that were valid during the creation were used as basis.

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Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use selfcontained respiratory protective device.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Recommended material:

Butyl rubber, BR
Nitrile rubber, NBR

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

Body protection: Impervious protective clothing

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Viscous
Color: Green
Odor: Amine-like
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 201 °C (394 °F)

Flash point: 139 °C (282 °F)

Flammability (solid, gaseous): Not applicable.

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Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	2.16 g/cm ³ (18.025 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	0.7 %
VOC content:	0.7 %
	15.1 g/l / 0.13 lb/gl
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents.

Conditions to avoid No further relevant information available.

Incompatible materials: Reacts with oxidizing agents.

Hazardous decomposition products: No dangerous decomposition products known.

*** 11 Toxicological information**

Information on toxicological effects

Acute toxicity:		
Alkyl phenol (Proprietary)		
Oral	LD50	>2000 mg/kg bw (rat)
Dermal	LD50	2288 mg/kg bw (rabbit)
Inhalative	LC50/4h	5 mg/l (rat)
Alkyl ether amine (Proprietary)		
Oral	LD50	910 mg/kg bw (rat)
Aliphatic amine (Proprietary)		
Oral	LD50	930 mg/kg bw (rat)
Dermal	LD50	2000 mg/kg bw (rabbit)

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Inhalative	LC50	3.89 mg/kg (rat)
	LC50/4h	0.89 mg/l (rat)
84852-15-3 4-nonylphenol, branched		
Oral	LD50	1300 mg/kg bw (rat)

Primary irritant effect:

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye: Strong caustic effect.

Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful
Corrosive
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories

IARC (International Agency for Research on Cancer)		
13983-17-0	Natural wollastonite	3
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	2B
64-17-5	ethanol	1
14808-60-7	Quartz (SiO ₂)	1
13463-67-7	titanium dioxide	2B
NTP (National Toxicology Program)		
14808-60-7	Quartz (SiO ₂)	K

***12 Ecological information**

Toxicity	
Alkyl phenol (Proprietary)	
LC50/96h	5 mg/l (Fish - Pimephales promelas)
84852-15-3 4-nonylphenol, branched	
LC50/96h	0.23 mg/l (Fish - Oncorhynchus mykiss)
	0.138 mg/l (Fish - Pimephales promelas)

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Harmful to fish

Additional ecological information:

General notes:

Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms

Results of PBT and vPvB assessment

PBT: Not available.

vPvB: Not available.

Other adverse effects No further relevant information available.

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13 Disposal considerations

Waste treatment methods

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose safely in accordance with local and national legislations
Delivery to authorized waste disposal contractor only.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

*** 14 Transport information**

UN-Number DOT, ADR, IMDG, IATA	UN2735
UN proper shipping name DOT ADR IMDG, IATA	Amines, liquid, corrosive, n.o.s. (Alkyl amine (Proprietary)) 2735 Amines, liquid, corrosive, n.o.s. (Alkyl amine (Proprietary)) AMINES, LIQUID, CORROSIVE, N.O.S. (Alkyl amine (Proprietary))
Transport hazard class(es) DOT  Class Label	8 Corrosive substances. 8
ADR, IMDG, IATA  Class Label	8 Corrosive substances 8
Packing group DOT, ADR, IMDG, IATA	II
Environmental hazards: Marine pollutant:	Yes
Special precautions for user Danger code (Kemler): EMS Number: Segregation groups	Warning: Corrosive substances 80 F-A,S-B Alkalis
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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UN "Model Regulation":	UN2735, Amines, liquid, corrosive, n.o.s. (Alkyl amine (Proprietary)), 8, II
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15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (extremely hazardous substances):
None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.

TSCA (Toxic Substances Control Act):	
7727-43-7	barium sulphate, natural
	Alkyl phenol (Proprietary)
	Alkyl ether amine (Proprietary)
	Aliphatic amine (Proprietary)
84852-15-3	4-nonylphenol, branched
	Alkyl amine (Proprietary)
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)
10124-37-5	calcium nitrate, containing in the anhydrous state more than 16 per cent by weight of nitrogen
64-17-5	ethanol
14808-60-7	Quartz (SiO ₂)
13463-67-7	titanium dioxide
57-55-6	propane-1,2-diol

Proposition 65

Chemicals known to cause cancer:	
14808-60-7	Quartz (SiO ₂)

Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	

Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	

Chemicals known to cause developmental toxicity:	
64-17-5	ethanol

Carcinogenic categories

EPA (Environmental Protection Agency)		
7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)

TLV (Threshold Limit Value established by ACGIH)		
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
64-17-5	ethanol	A3
14808-60-7	Quartz (SiO ₂)	A2
13463-67-7	titanium dioxide	A4

NIOSH-Ca (National Institute for Occupational Safety and Health)		
14808-60-7	Quartz (SiO ₂)	
13463-67-7	titanium dioxide	

OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

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GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

Alkyl phenol (Proprietary)
4-nonylphenol, branched
Alkyl ether amine (Proprietary)
Aliphatic amine (Proprietary)

Hazard statements

Harmful if inhaled.
Causes severe skin burns and eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life with long lasting effects.

Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Do not breathe dust/fume/gas/mist/vapours/spray.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/...
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Product safety department

Contact:

Seal For Life Technologies & Services B.V.
Gasselterstraat 20, 9503JB Stadskanaal, the Netherlands
Tel: +31 599 696 170; Fax: +31 599 696 177; Email: info@sealforlife.com

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)

* **Data compared to the previous version altered.**