

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

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

Product identifier Powercrete R 95 Part A

Trade name: Powercrete R 95 Part A

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 resin

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Seal For Life Industries LLC - Powercrete

103 J.L. Farmer Road, Franklin, KY 42134, USA

Tel. (+1) 508-918-1600, Fax. (+1) 508-918-1910, Email: franklin@sealforlife.com

Information department: Product safety department of manufacturer / supplier

Emergency telephone number:

For emergency assistance call CHEMTREC (24 hours):

Within USA/Canada 1-800-424-9300; Outside USA/Canada +1 703-527-3887 (collect calls accepted)

*** 2 Hazard(s) identification**

Classification of the substance or mixture



GHS08 Health hazard

Carc. 2

H351 Suspected of causing cancer.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2

H315 Causes skin irritation.

Eye Irrit. 2A

H319 Causes serious eye irritation.

Skin Sens. 1

H317 May cause an allergic skin reaction.

Label elements

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

Hazard pictograms



GHS07



GHS08



GHS09

Signal word Warning

Hazard-determining components of labeling:

Bisphenol F, reaction product with epichlorohydrin
titanium dioxide

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

(Contd. on page 2)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 1)

Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

Precautionary statements

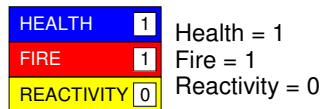
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



HMS-ratings (scale 0 - 4)



Other hazards

Results of PBT and vPvB assessment

PBT: Not available.
vPvB: Not available.

3 Composition/information on ingredients

Chemical characterization: Mixtures

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

Dangerous components:		
28064-14-4	Bisphenol F, reaction product with epichlorohydrin ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; H401	25-50%
12001-26-2	Mica	5.0-10%
471-34-1	calcium carbonate	5.0-10%
7727-43-7	barium sulphate, natural	2.5-5.0%

SVHC None.

4 First-aid measures

Description of first aid measures

General information: Personal protection for the First Aider.

After inhalation:

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.
Do not use mouth to mouth or mouth to nose resuscitation.

After skin contact:

Flush immediately with plenty of water
Remove contaminated clothing
Seek medical treatment.

(Contd. on page 3)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 2)

After eye contact:

Rinse opened eye for several minutes under running water.
Remove any contact lenses
Seek medical treatment.

After swallowing:

Rinse mouth with water
Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing
Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

*** 5 Fire-fighting measures**

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

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

Remove persons from danger area.

Ensure adequate ventilation

Wear protective clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

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).

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

Work only in fume cabinet.

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:

Store only in the original receptacle.

(Contd. on page 4)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 3)

Prevent any seepage into the ground.
Provide floor trough without outlet.

Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

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:	
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
471-34-1 calcium carbonate	
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	TLV withdrawn
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

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

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Be sure to clean skin thoroughly after work and before breaks.
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

(Contd. on page 5)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 4)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/
the chemical mixture.

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.

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:	Grey
Odor:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	94 °C (201 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	Not determined.
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):	1.73 g/cm ³ (14.437 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Segregation coefficient (n-octanol/water): Not determined.	

(Contd. on page 6)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 5)

Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	0.0 %
Other information	The material polymerizes to 100% solids, after mixing and reaction with the corresponding "Part B" of the product.

*** 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 strong acids.

Strong oxydizing agents

Hazardous decomposition products:

Carbon monoxide

Carbon dioxide

*** 11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

28064-14-4 Bisphenol F, reaction product with epichlorohydrin

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: Sensitization possible through skin contact.

Additional toxicological information:

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

Carcinogenic categories

IARC (International Agency for Research on Cancer)

13983-17-0	Natural wollastonite	3
13463-67-7	titanium dioxide	2B
14808-60-7	Quartz (SiO ₂)	1

NTP (National Toxicology Program)

14808-60-7	Quartz (SiO ₂)	K
------------	----------------------------	---

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

(Contd. on page 7)

**Material Safety Data Sheet
acc. to ISO/DIS 11014**

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 6)

*** 12 Ecological information**

Toxicity

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: Toxic for 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.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not available.

vPvB: Not available.

Other adverse effects No further relevant information available.

*** 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

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

*** 14 Transport information**

UN-Number DOT, ADR, IMDG, IATA	UN3082
UN proper shipping name DOT	- (Not regulated for transport) Environmentally hazardous substances, liquid, n.o.s.
ADR	3082 Environmentally hazardous substances, liquid, n.o.s. (Bisphenol F, reaction product with epichlorohydrin)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol F, reaction product with epichlorohydrin), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol F, reaction product with epichlorohydrin)
Transport hazard class(es) DOT, ADR, IMDG, IATA	
 	
Class	9 Miscellaneous dangerous substances and articles

(Contd. on page 8)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 7)

Label	9
Packing group ADR, IMDG, IATA	III
Environmental hazards:	Product contains environmentally hazardous substances: Bisphenol F, reaction product with epichlorohydrin
Marine pollutant:	Yes
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user Danger code (Kemler): EMS Number:	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT Remarks:	Special marking with the symbol (fish and tree).
UN "Model Regulation":	UN3082, Environmentally hazardous substances, liquid, n.o.s. (Bisphenol F, reaction product with epichlorohydrin), 9, III

*** 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):	
28064-14-4	Bisphenol F, reaction product with epichlorohydrin
1317-65-3	Calcium carbonate
471-34-1	calcium carbonate
7727-43-7	barium sulphate, natural
13463-67-7	titanium dioxide
7440-44-0	carbon
14808-60-7	Quartz (SiO ₂)
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:	
None of the ingredients is listed.	

(Contd. on page 9)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 8)

Carcinogenic categories

EPA (Environmental Protection Agency)		
7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)
TLV (Threshold Limit Value established by ACGIH)		
13463-67-7	titanium dioxide	A4
14808-60-7	Quartz (SiO ₂)	A2
NIOSH-Ca (National Institute for Occupational Safety and Health)		
13463-67-7	titanium dioxide	
14808-60-7	Quartz (SiO ₂)	

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

Hazard pictograms



Signal word Warning

Hazard-determining components of labeling:

Bisphenol F, reaction product with epichlorohydrin
titanium dioxide

Hazard statements

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Toxic 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.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
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 SDS: 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

Date of preparation / last revision 07/08/2014 / 1

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

(Contd. on page 10)

**Material Safety Data Sheet
acc. to ISO/DIS 11014**

Printing date 07/08/2014

Version 2

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part A

(Contd. of page 9)

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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Carc. 2: Carcinogenicity, Hazard Category 2
: Hazardous to the aquatic environment - AcuteHazard, Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
*** Data compared to the previous version altered.**

— USA —

**Material Safety Data Sheet
acc. to ISO/DIS 11014**

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

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

Product identifier Powercrete R 95 Part B

Trade name: Powercrete R 95 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) 800-343-7875, Fax. (+1) 800-328-4822, Email: franklin@sealforlife.com

Information department: Product safety department of manufacturer / supplier

Emergency telephone number:

For emergency assistance call CHEMTREC (24 hours):

Within USA/Canada 1-800-424-9300; Outside USA/Canada +1 703-527-3887 (collect calls accepted)

*** 2 Hazard(s) identification**

Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



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.
STOT SE 1 H370-H371 Causes damage to the skin, the respiratory system, the digestive system and the stomach. Route of exposure: Oral, Inhalative, Dermal. May cause damage to the central nervous system and the lung.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

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



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
(Contd. on page 2)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 1)

Hazard pictograms



Signal word Danger

Hazard-determining components of labeling:

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

Hazard statements

Harmful if swallowed.
Toxic 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.
Causes damage to the skin, the respiratory system, the digestive system and the stomach. Route of exposure: Oral, Inhalative, Dermal. May cause damage to the central nervous system and the lung.
May cause damage to organs through prolonged or repeated exposure.
Toxic 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.
In case of inadequate ventilation wear respiratory protection.
IF ON SKIN (or hair): Remove/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.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



Other hazards

Results of PBT and vPvB assessment

PBT: Not available.
vPvB: Not available.

*** 3 Composition/information on ingredients**

Chemical characterization: Mixtures

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

(Contd. on page 3)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 2)

Dangerous components:		
	Alkyl phenol (Proprietary) ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; STOT SE 1, H370-H371-H335-H336; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Sens. 1, H317; H401	10-25%
	Alkyl ether amine (Proprietary) ⚠ Resp. Sens. 1, H334; STOT SE 1, H370-H371-H335-H336; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	10-25%
98-54-4	4-tert-butylphenol ⚠ Eye Dam. 1, H318; ⚠ Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; H401	10-25%
	Cycloaliphatic amines ⚠ Resp. Sens. 1, H334; STOT SE 1, H370-H371-H335; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	10-25%
	Aliphatic amine (Proprietary) ⚠ Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; STOT SE 1, H370-H371-H335-H336; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	5.0-10%
1761-71-3	4,4'-methylenebis(cyclohexylamine) ⚠ STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317; H401	5.0-10%
111-40-0	2,2'-iminodiethylamine ⚠ Acute Tox. 2, H330; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335	2.5-5.0%
84852-15-3	4-nonylphenol, branched ⚠ Repr. 2, H361; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	2.5-5.0%
	Alkyl amine (Proprietary) ⚠ Resp. Sens. 1, H334; STOT SE 1, H370-H371-H335-H336; STOT RE 2, H373; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Sens. 1, H317	2.5-5.0%
100-51-6	Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	2.5-5.0%

SVHC None.

*** 4 First-aid measures**

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

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

After inhalation:

Call a doctor immediately.

Use a respiration bag or breathing device.

Take affected persons into fresh air and keep quiet.

Supply fresh air or oxygen; call for doctor.

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

After skin contact:

Remove contaminated clothing

Flush immediately with plenty of water

Call a doctor immediately.

Cover wound with a sterile dressing.

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Call a doctor immediately.

Remove any contact lenses

(Contd. on page 4)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 3)

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse mouth with water

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

A person vomiting while lying on his/her back should be turned onto his/her side.

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Dizziness

Unconsciousness

Coughing

Breathing difficulty

Asthma attacks

Nausea

Gastric or intestinal disorders

Cramp

Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.

Medical supervision for at least 48 hours.

*** 5 Fire-fighting measures**

Extinguishing media

Suitable extinguishing agents:

Foam

Carbon dioxide

Fire-extinguishing powder

Sand

Limestone powder

Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: Water spray

Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Carbon monoxide (CO)

Carbon dioxide (CO₂)

nitrogen containing compounds

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Mouth respiratory protective device.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Disposal of fire debris and contaminated fire fighting water in accordance with official regulations.

*** 6 Accidental release measures**

Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Keep people at a distance and stay upwind.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course.

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

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

(Contd. on page 5)

**Material Safety Data Sheet
acc. to ISO/DIS 11014**

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 4)

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.
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

At all times avoid inhalation of the product and contact with skin and eyes
Do not eat, drink or smoke while handling the product
Ensure appropriate ventilation/exhaust at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about protection against explosions and fires: Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.
Provide floor trough without outlet.

Information about storage in one common storage facility:

Store away from oxidizing agents.
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Further information about storage conditions:

Store in a dry, cool, well ventilated place
Keep receptacle tightly sealed.

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:	
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
111-40-0 2,2'-iminodiethylamine	
REL	Long-term value: 4 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 4.2 mg/m ³ , 1 ppm Skin
100-51-6 Benzyl alcohol	
WEEL	Long-term value: 10 ppm

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

(Contd. on page 6)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 5)

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.
Store protective clothing separately.
Avoid contact with the eyes and skin.

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. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Recommended material:

Neoprene gloves
Butyl rubber, BR
Nitrile rubber, NBR

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.

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:

Use protective suit.
Impervious protective clothing

*** 9 Physical and chemical properties**

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Color:	Light brown
Odor:	Ammonia-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)

(Contd. on page 7)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 6)

Flash point:	101 °C (214 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	300 °C (572 °F)
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):	1.03 g/cm ³ (8.595 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	3.1 %
VOC content:	3.1 %
	32.4 g/l / 0.27 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 acids.
- Reacts with oxidizing agents.
- Corrosive action on metals.
- Reacts with alkaline metals.

Conditions to avoid No further relevant information available.

Incompatible materials:

- Reacts with strong acids.
- Strong oxydizing agents

Hazardous decomposition products:

- Nitrogen oxides
- Ammonia
- Nitrogen containing compounds
- Aldehyde
- Flammable gases/vapors

(Contd. on page 8)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 7)

*** 11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

Alkyl phenol (Proprietary)		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	2288 mg/kg (rabbit)
Inhalative	LC50/4h	5 mg/l (rat)
Alkyl ether amine (Proprietary)		
Oral	LD50	910 mg/kg (rat)
98-54-4 4-tert-butylphenol		
Oral	LD50	2951 mg/kg (rat)
Dermal	LD50	2288 mg/kg (rabbit)
Aliphatic amine (Proprietary)		
Oral	LD50	930 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50	3.89 mg/kg (rat) (1h)
	LC50/4h	0.8 mg/l (rat) (female)
1761-71-3 4,4'-methylenebis(cyclohexylamine)		
Oral	LD50	380 mg/kg (rat)
Dermal	LD50	>1000 mg/kg (rabbit)
111-40-0 2,2'-iminodiethylamine		
Oral	LD50	1080 mg/kg (rat)
Dermal	LD50	1090 mg/kg (rabbit)
Inhalative	LC50/4h	0.3 mg/l (rat) (OECD Guideline 403)
84852-15-3 4-nonylphenol, branched		
Oral	LD50	1300 mg/kg (rat)
100-51-6 Benzyl alcohol		
Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50/4h	4178 mg/l (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

Very toxic

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)

None of the ingredients is listed.

(Contd. on page 9)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 8)

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

***12 Ecological information**

Toxicity

Aquatic toxicity:

Alkyl phenol (Proprietary)

LC50/96h 5 mg/l (Fish - Pimephales promelas)

98-54-4 4-tert-butylphenol

EC50	2 mg/l (Daphnia magna) (OECD 211 - 21 days)
EC50/48h	4.8 mg/l (Daphnia magna) (OECD 202)
ErC50/72h - Inhibition of average growth rate	14 mg/l (Algae - Pseudokirchneriella subcapitata) (OECD 201)
LC50/96h	> 1 mg/l (Fish - Oncorhynchus mykiss) (OECD 203)
NOEC/21days	0.73 mg/l (Daphnia magna) (OECD 202)
NOEC/72h	0.32 mg/l (Algae - Pseudokirchneriella subcapitata) (OECD 201)

1761-71-3 4,4'-methylenebis(cyclohexylamine)

EC50/48h	9.24 mg/l (Daphnia magna)
EC50/72h	140 mg/l (Algae)
LC50/96h	46 mg/l (Fish - Leuciscus idus)

111-40-0 2,2'-iminodiethylamine

LC50/48h	16 mg/l (Daphnia magna)
LC50/96h	430 mg/l (fish)

84852-15-3 4-nonylphenol, branched

LC50/96h	0.23 mg/l (Fish - Oncorhynchus mykiss)
	0.138 mg/l (Fish - Pimephales promelas)

100-51-6 Benzyl alcohol

EC50/24h	55 mg/l (Daphnia magna)
IC50/72h	700 mg/l (Algae)
LC50/96h	10 mg/l (Fish - Lepomis macrochirus)
	460 mg/l (Fish - Pimephales promelas)

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: Toxic for fish

Additional ecological information:

General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not available.

vPvB: Not available.

Other adverse effects No further relevant information available.

(Contd. on page 10)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 9)

*** 13 Disposal considerations**

Waste treatment methods

Recommendation:

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

Uncleaned packagings:

Recommendation:

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

*** 14 Transport information**

UN-Number DOT, ADR, IMDG, IATA	UN2735
UN proper shipping name DOT	Polyamines, liquid, corrosive, n.o.s. (Diethylenetriamine, Aliphatic amine (Proprietary))
ADR	2735 Polyamines, liquid, corrosive, n.o.s. (Diethylenetriamine, Aliphatic amine (Proprietary)), MARINE POLLUTANT/ ENVIRONMENTALLY HAZARDOUS
IMDG	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE, Aliphatic amine (Proprietary), 4-nonylphenol, branched), MARINE POLLUTANT
IATA	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE, Aliphatic amine (Proprietary))
Transport hazard class(es)	
DOT	
Class Label	8 Corrosive substances 8
ADR, IMDG	
Class Label	8 Corrosive substances 8
IATA	
Class Label	8 Corrosive substances 8

(Contd. on page 11)

**Material Safety Data Sheet
acc. to ISO/DIS 11014**

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 10)

Packing group DOT, ADR, IMDG, IATA	III
Environmental hazards:	Product contains environmentally hazardous substances: 4-tert-butylphenol, 4-nonylphenol, branched
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special precautions for user	Warning: Corrosive substances
Danger code (Kemler):	80
EMS Number:	F-A,S-B
Segregation groups	Alkalis
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT Remarks:	Special marking with the symbol (fish and tree).
ADR Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
IMDG Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
UN "Model Regulation":	UN2735, Polyamines, liquid, corrosive, n.o.s. (Diethylenetriamine, Aliphatic amine (Proprietary)), MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS, 8, III

*** 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):

	Alkyl phenol (Proprietary)
	Alkyl ether amine (Proprietary)
98-54-4	4-tert-butylphenol
	Cycloaliphatic amines
	Aliphatic amine (Proprietary)
1761-71-3	4,4'-methylenebis(cyclohexylamine)
111-40-0	2,2'-iminodiethylamine
84852-15-3	4-nonylphenol, branched
	Alkyl amine (Proprietary)
67762-90-7	Siloxanes and silicones, di-Me, reaction products with silica
100-51-6	Benzyl alcohol

(Contd. on page 12)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 11)

Proposition 65

Chemicals known to cause cancer:
None of the ingredients is listed.
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:
None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)
None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

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

Hazard pictograms



Signal word Danger

Hazard-determining components of labeling:

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

Hazard statements

- Harmful if swallowed.
- Toxic 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.
- Causes damage to the skin, the respiratory system, the digestive system and the stomach. Route of exposure: Oral, Inhalative, Dermal. May cause damage to the central nervous system and the lung.
- May cause damage to organs through prolonged or repeated exposure.
- Toxic 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.
- In case of inadequate ventilation wear respiratory protection.
- IF ON SKIN (or hair): Remove/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.
- 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.

(Contd. on page 13)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 07/08/2014

Version 7

Reviewed on 07/08/2014

Trade name: Powercrete R 95 Part B

(Contd. of page 12)

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 SDS: 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

Date of preparation / last revision 07/08/2014 / 6

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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
: Hazardous to the aquatic environment - AcuteHazard, Category 2
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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