SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 (REACH) Article 31 and Annex II

Powercrete R65/F1 part B

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

Product name: Powercrete R65/F1 part B

1.2 Use of the substance/preparation:

Professional use

Hardener

Coating

1.3 Company/undertaking identification:

Berry Plastics BVBA
Nijverheidsstraat 10-11
B-2600 Westerlo
Tel: +32 14 72 25 00
Fax: +32 14 72 25 70
cpge@berryplastics.com

1.4 Emergency telephone:

24h/24h:
+32 14 58 45 45 (BIG)
USA: +1 800 424 93 00
During business hours:
888 767 7200 Berry Plastics Corrosion Protection Group Houston

2. Hazards identification

NFPA: 3-1-0(*)

DSD/DPD

Classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC

Harmful by inhalation and if swallowed

Causes burns

May cause sensitisation by skin contact

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Other hazards

Combustible

Contains a substance which is (possibly) teratogenic

Contains a substance which may cause harm to breastfed babies

Literature reports: not readily degradable in water

3. Composition/information on ingredients

Name	CAS No EINECS/ELINCS	Conc.	Classification according to DSD/ DPD	Classification according to CLP	Note
calcium nitrate	10124-37-5 233-332-1	<3 %	O; R8 Xi; R36	Ox. Sol. 3; H272 Eye Irrit. 2; H319	(1)
ethanol	64-17-5 200-578-6	<3 %	F; R11	Flam. Liq. 2; H225	(1)(2)
paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine	161278-27-9	30%<C<60%	Xn; R20/22 C; R34 R43 R52-53	Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412	(1)

(1) For R-phrases and H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

4. First aid measures

4.1 After inhalation:

Remove the victim into fresh air

Respiratory problems: consult a doctor/medical service

4.2 Skin contact:

Wash immediately with lots of water (15 minutes)/shower

Remove clothing while washing

Do not remove clothing if it sticks to the skin

Cover wounds with sterile bandage

Consult a doctor/medical service

If burned surface > 10%: take victim to hospital

4.3 Eye contact:

Rinse immediately with plenty of water for 15 minutes

Do not apply neutralizing agents

Take victim to an ophthalmologist

4.4 After ingestion:

Rinse mouth with water

Immediately after ingestion: give lots of water to drink

Do not induce vomiting

Do not give activated charcoal

Immediately consult a doctor/medical service

5. Fire-fighting measures

5.1 Suitable extinguishing media:

Water spray

Polyvalent foam

BC powder

Carbon dioxide

Sand/earth

5.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known

5.3 Special exposure hazards:

Temperature above flashpoint: higher fire/explosion hazard

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide)

5.4 Instructions:

Cool tanks/drums with water spray/remove them into safety

Dilute toxic gases with water spray

Take account of toxic fire-fighting water

Use water moderately and if possible collect or contain it

5.5 Special protective equipment for fire-fighters:

Gloves

Face-shield

Corrosionproof suit

Large spills/in enclosed spaces: compressed air apparatus

Large spills/in enclosed spaces: gas-tight suit

Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal precautions:

See heading 8.2

6.2 Environmental precautions:

Contain released substance, pump into suitable containers

Plug the leak, cut off the supply

Dam up the liquid spill

Prevent soil and water pollution
Prevent spreading in sewers
See heading 13

6.3 Methods for cleaning up:

Take up liquid spill into absorbent material, e.g.: sand/earth
Scoop absorbed substance into closing containers
Carefully collect the spill/leftovers
Damaged/cooled tanks must be emptied
Clean contaminated surfaces with an excess of water
Take collected spill to manufacturer/competent authority
Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

Keep away from naked flames/heat
Finely divided: spark- and explosionproof appliances
Finely divided: keep away from ignition sources/sparks
Observe very strict hygiene - avoid contact
Keep container tightly closed
Do not discharge the waste into the drain

7.2 Storage:

Safe storage requirements:

Store in a dry area
Keep container in a well-ventilated place
Keep out of direct sunlight
Keep locked up
Provide for a tub to collect spills
Keep only in the original container
Meet the legal requirements

Keep away from:

oxidizing agents
(strong) acids

7.3 Specific use(s):

See information supplied by the manufacturer for the identified use(s)

8. Exposure controls/Personal protection

8.1 Exposure limit values:

8.1.1 Occupational exposure:

If limit values are applicable and available these will be listed below.

Regulatory exposure limit (The Netherlands)

Ethanol	Short time value	950 ppm 1900 mg/m³
	Time-weighted average exposure limit	130 ppm 260 mg/m³

Limit Value (Belgium)

Ethanol	Short time value	- ppm - mg/m³
	Time-weighted average exposure limit	1000 ppm 1907 mg/m³

TLV (USA)

Ethanol	Short time value	1000 ppm

TRGS 900 (Germany)

Ethanol	Time-weighted average exposure limit	500 ppm 960 mg/m³

Limit Value (France)

Alcool éthylique	Short time value	5000 ppm 9500 mg/m³
	Time-weighted average exposure limit	1000 ppm 1900 mg/m³

Limit Value (UK)

Ethanol	Short time value	- ppm - mg/m³
	Time-weighted average exposure limit	1000 ppm 1920 mg/m³

8.1.2 Sampling methods:

Product name	Test	Number	Sampling method	Remarks
No data available				

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

Carry operations in the open/under local exhaust/ventilation or with respiratory protection

Personal protective equipment:

a) Respiratory protection:

High gas/vapour concentration: gas mask with filter type A

b) Hand protection:

Gloves

c) Eye protection:

Face shield

d) Skin protection:

Corrosionproof clothing

8.2.2 Environmental exposure controls:

See headings 6.2, 6.3 and 13

9. Physical and chemical properties

9.1 General information:

Physical form	Liquid
Odour	Amine-like odour
Colour	Green

9.2 Important health, safety and environmental information:

Flashpoint	139 °C
Relative density	1.35-1.41
Relative vapour density	> 2

9.3 Other information:

10. Stability and reactivity

10.1 Conditions to avoid:

Possible fire hazard

heat sources

Stability

Stable under normal conditions

10.2 Materials to avoid:

oxidizing agents

(strong) acids

10.3 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide)

11. Toxicological information

11.1 Acute toxicity:

ethanol

LD50 oral (rat)	7060 mg/kg
LD50 dermal (rabbit)	> 16000 mg/kg
LC50 inhalation (rat)	> 20 mg/l/4h

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LD50 oral (rat)	401 - 2000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg

11.2 Chronic toxicity:

Not listed in carcinogenicity class (IARC,EC,TLV,MAK)

Not listed in mutagenicity class (EC,MAK)

Contains a substance which is (possibly) teratogenic

Contains a substance which may cause harm to breastfed babies

ethanol

Listed in SZW - List of carcinogenic substances	yes
IARC - classification	1
Listed in SZW - List of reprotoxic substances (fertility): category	May have an effect on fertility
Listed in SZW - List of reprotoxic substances (development): category	Hazardous to the foetus
Listed in SZW - List of reprotoxic substances (breast feeding): category	May cause harm to breastfed babies
TLV - Carcinogen	A3
MAK - Krebserzeugend Kategorie	5
MAK - Keimzellmutagen Kategorie	5
MAK - Schwangerschaft Gruppe	C

11.3 Acute effects/symptoms:

Inhalation:

EXPOSURE TO HIGH CONCENTRATIONS:

Corrosion of the upper respiratory tract

Skin contact:

Caustic burns/corrosion of the skin

Eye contact:

Corrosion of the eye tissue

Ingestion:

Burns to the gastric/intestinal mucosa

11.4 Chronic effects:

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:

Skin rash/inflammation

12. Ecological information

12.1 Ecotoxicity:

ethanol

LC50 fishes

species	value	duration (h)	remarks
SALMO GAIRDNERI/ ONCORHYNCHUS MYKISS	13000 mg/l	96 h	

EC50 Daphnia

species	value	duration (h)	remarks
DAPHNIA MAGNA	9300 mg/l	48 h	

EC50 other aquatic organisms

species	value	duration (h)	remarks
ALGAE	5000 mg/l	72 h	

calcium nitrate

LC50 fishes

species	value	duration (h)	remarks
LEPOMIS MACROCHIRUS	10000 mg/l	96 h	STATIC SYSTEM

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LC50 fishes

species	value	duration (h)	remarks
PISCES	10 - 100 mg/l		Similar product

EC50 Daphnia

species	value	duration (h)	remarks
INVERTEBRATA	10 - 100 mg/l		Similar product

EC50 other aquatic organisms

species	value	duration (h)	remarks
ALGAE	10 - 100 mg/l		Similar product

12.2 Mobility:

Solubility in/reaction with water — Literature reports: soluble in water

European drinking water standards — Maximum concentration in drinking water: 50 mg/l (nitrate) (Directive 98/83/EC)

12.3 Persistence and degradability:

Literature reports: not readily degradable in water

12.4 Bioaccumulative potential:

According to literature, slightly bioaccumulative

12.5 Results of PBT assessment:

Not applicable, based on available data

12.6 Other adverse effects:

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

13. Disposal considerations

13.1 Provisions relating to waste:

Waste material code (Directive 2008/98/EC, decision 2001/118/EC)

08 01 11* : waste paint and varnish containing organic solvents or other dangerous substances

Depending on branch of industry and production process, also other EURAL codes may be applicable

Hazardous waste according to Directive 2008/98/EC

13.2 Disposal methods:

Remove waste in accordance with local and/or national regulations

Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste

Do not discharge into surface water

13.3 Packaging/Container:

Waste material code packaging (Directive 2008/98/EC)

15 01 10* : packaging containing residues of or contaminated by dangerous substances

14. Transport information

ADR

Proper shipping name	Amines, liquid, corrosive, n.o.s.
Techn./chem. name ADR	paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine
UN number	2735
Class	8
Packing group	II
Hazard identification number	80
Classification code	C7

Labels	8
Environmentally hazardous substance mark	no

RID

Proper shipping name	Amines, liquid, corrosive, n.o.s.
Techn./chem. name RID	paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine
UN number	2735
Class	8
Packing group	II
Classification code	C7
Labels	8
Environmentally hazardous substance mark	no

ADN

Proper shipping name	Amines, liquid, corrosive, n.o.s.
Techn./chem. name ADNR	paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine
UN number	2735
Class	8
Packing group	II
Classification code	C7
Labels	8
Environmentally hazardous substance mark	no

IMO

Proper shipping name	Amines, liquid, corrosive, n.o.s.
Techn./chem. name IMO	paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine
UN number	2735
Class	8
Packing group	II
Labels	8
Marine pollutant	
Environmentally hazardous substance mark	no

ICAO

Proper shipping name	amines, liquid, corrosive, n.o.s. or polyamines, liquid, corrosive, n.o.s.
Techn./chem. name ICAO	paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine
UN number	2735
Class	8
Packing group	II
Labels	8
Environmentally hazardous substance mark	no

15. Regulatory information

15.1 EU Legislation:

DSD/DPD

Classification according to directives 67/548/EEC, 1999/45/EC and 2006/8/EC

Corrosive

Contains: paraformaldehyde, oligomeric reaction products with 4-tert-butylphenol, 4-nonylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine

R-phrases

20/22	Harmful by inhalation and if swallowed
34	Causes burns
43	May cause sensitisation by skin contact
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrases

26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
36/37/39	Wear suitable protective clothing gloves, and eye/face protection
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
61	Avoid release to the environment. Refer to special instructions/safety data sheets.

15.2 National provisions:

16. Other information

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

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(*) = INTERNAL CLASSIFICATION (NFPA)

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive
DPD Dangerous Preparation Directive
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Full text of any R-phrases referred to under headings 2 and 3:

R08	Contact with combustible material may cause fire
R11	Highly flammable
R20/22	Harmful by inhalation and if swallowed
R34	Causes burns
R36	Irritating to eyes
R43	May cause sensitisation by skin contact
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of any H-statements referred to under headings 2 and 3:

H225	Highly flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Full text of any classes referred to under headings 2 and 3:

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Ox. Sol.	Oxidising solid
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization