SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**DEGADUR® Crack Sealer**
Product Use:	for 2-component reactive resin for impregnation and microcracksealing of concrete substrates
Restriction of Use in NZ:	Refer to Section 15
Company Name:	**Degafloor NZ**
Address:	6 Sheffield Street Levin, 5510
Telephone:	+64 6 367 9799
E-mail:	orders@degafloor.nz
Emergency No:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	15 September 2020

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: Surface Coatings and Colourants (Flammable) – HSR002662

Pictograms

Flammable Irritant

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1B	H225	Highly flammable liquid and vapour.	Flam. Liq. 2
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.1E (Resp)	H335	May cause respiratory irritation.	STOT SE 3
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
9.1C	H412	Harmful to aquatic life with long lasting effects.	Aquatic Chronic 3

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting.

P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378	In case of fire: Use foam, dry chemical and carbon dioxide for extinction.

Storage Code	**Storage Statement**
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.

Disposal Code	**Disposal Statement**
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	**Wt%**	**CAS NUMBER.**
Methyl methacrylate	>=70,0 - <90,0%	80-62-6
1,4-butanediol dimethacrylate	>=3,0 - <5,0%	2082-81-7
N,N-bis-(2-hydroxypropyl)-p- toluidine	>=1,0 - <2.5%	38668-48-3

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice.

If on Skin — Take off contaminated clothing and wash before re-use. Wash skin with plenty of soap and water. If skin irritation or rash occurs: get medical advice/attention.

If Swallowed — Do not induce vomiting. Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. Seek medical attention if needed.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: May be harmful if swallowed.

Inhalation: May cause respiratory irritation.
Skin: Causes skin irritation and may cause an allergic skin reaction.
Eye: Not applicable.

Treatment: Symptomatic treatment.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Liquid
Hazards from products	May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. Closed container may rupture if strongly heated. Vapours may form explosive mixtures with air. Combustible air-vapour mixtures are heavier than the air and spread along the floor. Ignition from a considerable distance is possible.
Suitable Extinguishing media	Foam, dry chemical and carbon dioxide Unsuitable: High volume water jet
Precautions for firefighters and special protective clothing	Wear self-contained breathing apparatus. Keep away from sources of ignition - No smoking. Vapors are heavier than air. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Take action to prevent static discharges. Use explosion-proof equipment. In the event of fire, cool the endangered containers with water. Firefighting must be carried out from a safe distance.
General Fire Hazards	Vapours are heavier than air and can form an explosive mixture with air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Remove sources of ignition.Also keep emptied containers away from sources of heat and ignition.Keep out unprotected persons.In case of fire, remove the endangered barrels and bring to a safe place, if this can be done safely.Containers exposed to heat (fire) may build up pressure. Cool by splashing with water.Prevent fire extinguishing water from contaminating surface water or the ground water system.Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
HAZCHEM CODE	**3YE**

Section 6. Accidental Release Measures

Personal precautions:
Use protective clothing as detailed in Section 8. Assure sufficient ventilation. Use personal protective clothing. Use breathing apparatus if exposed to vapours/dust/mist/aerosol. Keep away from open flames, hot surfaces and sources of ignition. Vapours can form explosive mixtures with air. Keep out unprotected persons. Avoid spark generation.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Notify authorities if product enters sewers or public waters.

Spill and Disposal procedures:
Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment!
Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust).
Dispose of in accordance with local regulations detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:
- Read label before use.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.

- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Open drum carefully as content may be under pressure.
- Avoid breathing fumes, vapours or spray.
- Provide sufficient ventilation and exhaust at the workplace.
- Avoid contact with skin and eyes.
- Wash hands thoroughly after handling.
- Safety shower and eye wash fountain should be available.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Store in a well-ventilated place and keep cool.
- Keep container tightly closed.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from heat.
- Protect from the action of light.
- Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation.
- With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability.
- Store at temperatures up to 25 °C.
- Keep away from direct sunlight.
-

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³
Methyl methacrylate (skin) [80-62-6]	50	208	100	416

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

Engineering Controls

Provide sufficient ventilation and exhaust at the workplace.

Personal Protection Equipment

Eyes	Tightly fitting safety goggles
Hands	Material: butyl rubber gloves Break-through time: 66 min Guideline: EN 374 Additional Information: Gloves should be replaced regularly, especially after

	extended contact with the product. For each work-place a suitable glove type has to be selected.
Skin	For handling larger quantities: Wear chemical-resistant boots and an apron.
Respiratory	Breathing apparatus in case of high concentrations.
General	Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	colourless to slightly bluish
Odour	ester-like
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	10 °C (methyl methacrylate)
Flammability	Not available
Upper and Lower Explosive Limits	12,5 %(V) (methyl methacrylate) 2,1 %(V) (methyl methacrylate)
Vapour Pressure	Not available
Vapour Density (air=1)	Not available
Density	0,98 g/cm^3 (20 °C)
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Minimum ignition temperature:	Not available
Decomposition Temperature	No decomposition if used as directed.
Dust Explosion Limit, Lower:	Not available
Dynamic Viscosity	6 - 9 mPa.s
Kinematic Viscosity:	6,1 - 9,1 mm^2/s

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Vigorous polymerization is possible when heated /exposed to heat.
Conditions to Avoid	Avoid high temperatures and sources of ignition. Ultraviolet light. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.
Incompatible Materials	Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.
Hazardous Decomposition Products	None when used as directed.

Section 11 Toxicological Information

Acute Effects:

Swallowed	May be harmful if swallowed. LD50: 2084 mg/kg

Dermal	Not applicable.
Inhalation	Not harmful if inhaled. May cause respiratory irritation.
Eye	Not applicable.
Skin	Causes skin irritation and may cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Methyl methacrylate (80-62-6)	2000ppm (rat) EPA CCID=4700mg/kg (dog)	-	Rat (Vapour) : 25 ppm EPA-CCID = 29mg/l (rat)
1,4-butanediol dimethacrylate (2082-81-7)	300 mg/kg (rat)	-	-

Section 12. Ecotoxicological Information

HSNO Classes: 9.1C = Harmful to aquatic life with long lasting effects.

Persistence and degradability	94 % Readily biodegradable Related to substance: methyl methacrylate
Bioaccumulation	No evidence for hazardous properties
Mobility in Soil	No specific test data available
Other adverse effects	Prevent substance from entering soil, natural bodies of water and sewer systems.

Individual component information:

Methyl methacrylate (80-62-6)

Route	Species	Duration	Value LC50/EC50
Acute aquatic, fish	Oncorhynchus mykiss (rainbow trout)	96 hr	>79 mg/L
Chronic, aquatic, fish	Danio rerio (zebra fish)	14 d	9.4 mg/l
Acute aquatic, Crustacean	Daphnia magna (Water flea)	48 hr	69 mg/L
Chronic aquatic, Crustacean	Daphnia magna (Water flea)	21 d	37 mg/l
Acute aquatic, Algal	Selenastrum capricornutum (green algae)	72 hr	EC50 = >100mg/l NOEC = >110mg/l

1,4-butanediol dimethacrylate (2082-81-7)

Route	Species	Duration	Value LC50/EC50
Acute, aquatic, fish	Leuciscus idus melanotus	48 hr	32.5 mg/L
Chronic aquatic, Crustacean	Daphnia magna	21 d	7.51 mg/l
Acute aquatic, Algal	Desmodesmus subspicatus (green algae)	72 hr	9.79 mg/L

N,N-bis-(2-hydroxypropyl)-p-toluidine (38668-48-3)

Route	Species	Duration	Value LC50/EC50
Acute, aquatic, fish	Danio rerio (zebra fish)	96 hr	17 mg/L
aquatic, Crustacean	Daphnia magna (Water flea)	48 hr	28.8 mg/L
Acute aquatic, Algal	Desmodesmus subspicatus (green algae)	72 hr	245 mg/L

Section 13. Disposal Considerations

Disposal Method:
Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste – Flammable, Ecotoxic" and that the label also has the Flammable Pictogram, waste type identifier, and the business name, address, and phone number.

Contaminated Packaging:
Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Road, Rail, Sea and Air Transport

UN No	1866
Class - Primary	3
Packing Group	II
Proper Shipping Name	RESIN SOLUTION (STABILIZED)
Marine Pollutant	No
Special Provisions	If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: Surface Coatings and Colourants (Flammable) – HSR002662

HSNO Classification: 3.1B, 6.1E(Oral, Resp), 6.3A, 6.5B, 9.1C

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	100L (>5L), 250L (<5L), 50L open (3.1B)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250L (3.1B)
Fire Extinguisher Quantities	250L – 2x required
Emergency Response Plan	1000L (3.1B)

Secondary Containment	1000L (3.1B)
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact Degafloor NZ, if further information is required.

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