

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Bond Promoter HP**
 Product Use: Auxiliary agent for road markings and floor coatings Roller application or brushing Hand-mixing with intimate contact and only PPE available Wide dispersive indoor use resulting in inclusion into or onto a matrix Wide dispersive outdoor use resulting in inclusion into or onto a matrix

Restriction of Use in NZ: Refer to Section 15

Company Name: **Degafloor NZ**
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Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 13 November 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, Corrosive) – HSR002663

Pictograms



Flammable Allergic Corrosive

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
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
8.2B	H314	Causes severe skin burns and eye damage.	Skin Corr. 1B
8.3A	H318	Causes serious eye damage.	Eye Corr. 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 and 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.
P260	Do not breathe fumes, vapours and 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.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
Methacryloyloxyethyl phosphate	>=60 - <70%	52628-03-2
Methyl methacrylate	>=25 - <30%	80-62-6
Methacrylic acid	>=0.1 - <1%	79-41-4

Section 4. First Aid Measures

Routes of Exposure:

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 or doctor/physician.

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	Rinse mouth. 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. Excessive or prolonged exposure can cause the following: Headache or confusion.
Skin:	Causes skin burns and may cause an allergic skin reaction.
Eye:	Causes severe eye damage.

Treatment: None known.

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. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Use explosion-proof equipment.
General Fire Hazards	Vapours are heavier than air and can form an explosive mixture with air. Flammable liquid. Vapours 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	3WE

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 and 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.
- Do not breathe fumes, vapours and spray.
- Wash hands thoroughly after handling.
- 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.
- Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour).
- Take action to prevent static discharges.
- In the event of fire, cool the endangered containers with water.
- When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air.
- When using do not eat, drink or smoke.
- Avoid inhalation, ingestion and contact with skin and eyes.
- Provide sufficient ventilation and exhaust at the workplace. Provide good room ventilation even at ground level (vapours are heavier than air).
- Keep container tightly closed.
- Open drum carefully as content may be under pressure.
- Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Control staff entry to working area.
- Training for staff on good practice.
- Recording of any 'near miss' situations.
- Regular cleaning of equipment and work area.

Precautions for Storage:

- Keep out of reach of children.
- Store locked up.
- Store in a well-ventilated place and keep cool.
- Do not store together with strong oxidizing agents.
- 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.
- Keep only in the original container at a temperature not exceeding 30 °C.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Methyl methacrylate (skin) [80-62-6]	50	208	100	416
Methacrylic acid [79-41-4]	20	70	-	-

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: 300 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 if the limit values like TLV are exceeded, when vapours or aerosols occur Respirator with filter for organic vapour.
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	Yellowish to brownish
Odour	Characteristic
Odour Threshold	Not available
pH	Not available
Boiling Point	100 °C (1.013 hPa)
Melting Point	Not available
Freezing Point	-0 °C
Flash Point	10 °C (methyl methacrylate)
Flammability	Flammable
Upper and Lower Explosive Limits	12,5 %(V) (methyl methacrylate) 2,1 %(V) (methyl methacrylate)
Vapour Pressure	approx. 40 hPa (20 °C)
Vapour Density (air=1)	>120°C
Density	1.21 g/cm ³ (20 °C)
Water Solubility	approx. 40 g/l (20 °C)
Partition Coefficient:	Not available

Auto-ignition Temperature	Not available
Minimum ignition temperature:	430 °C (DIN 51794) (methyl methacrylate)
Decomposition Temperature	No decomposition if used as directed.
Dynamic Viscosity	40 - 55 mPa.s (23 °C, Brookfield)
Kinematic Viscosity:	Not available
Dust Explosion Limit, Lower:	Not available

Section 10. Stability and Reactivity

Stability of Substance	The product is normally stabilized when delivered. However, it might polymerize producing heat and ignite spontaneously if maximum storage time and/or maximum storage temperature have been substantially exceeded.
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.
Conditions to Avoid	Heat and ignition sources, aging, contamination, oxygen free atmosphere.
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: 3704 mg/kg
Dermal	Not applicable. LD50: >5000 mg/kg
Inhalation	May cause respiratory irritation.
Eye	Causes severe eye damage.
Skin	Causes skin burns 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)	>5000mg/kg (rabbit)	Rat (Vapour) : 25 ppm EPA-CCID = 29mg/l (rat)
Methacryloyloxyethyl phosphate (52628-03-2)	100 mg/kg (rat)	-	-
methacrylic acid (79-41-4)	-	-	NOAEL (Rat(male and female),

			Inhalation, 5 days/weeks, 6 hours/day): 100 ppm Findings: damage to the nasal mucosa
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Section 12. Ecotoxicological Information

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

Persistence and degradability	The product is biodegradable.
Bioaccumulation	Product: Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow). methacryloyloxyethyl phosphate: Log Kow: 1- <2,72 30 °C Methyl methacrylate Log Kow: 1,38 methacrylic acid Log Kow: 0,93
Mobility in Soil	Binding to the solid soil phase, sediment or clarification sludge is not expected. The substance evaporates gradually into the atmosphere from the surface of the water. If the substance does get into the environment, it tends to remain in the compartment it was discharged into.
Other adverse effects	Prevent substance from entering soil, natural bodies of water and sewer systems.

Acute hazards to the aquatic environment:

Fish

Product: LC 50 (Oncorhynchus mykiss (rainbow trout), 96 h): > 100 mg/l (own study)

Aquatic Invertebrates

Product: EC 50 (Daphnia magna, 48 h): > 100 mg/l (own study)

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

methacrylic acid (79-41-4)

Route	Species	Duration	Value LC50/EC50
Acute, aquatic, fish	Danio rerio (zebra fish),	35 days	10 mg/L
Chronic Crustacean	Daphnia magna (Water flea),	21 days	53 mg/l
Acute aquatic, Algal	(Selenastrum capricornutum (green algae),	72 hr	EC50 45 mg/l
	(Selenastrum capricornutum (green algae)	72 hr	NOEC 8.2 mg/l

Methacryloyloxyethyl phosphate (52628-03-2)

Route	Species	Duration	Value LC50/EC50
Acute aquatic, Algal	(Pseudokirchneriella subcapitata (green algae),	72 hr	EC50 >120 mg/l
	(Pseudokirchneriella subcapitata (green algae),	72 hr	NOEC 30 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, Corrosive, Ecotoxic" and that the label also has the Flammable and Corrosive Pictograms, 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	2924
Class – Primary	3
Packing Group	II
Sub Class	8
Proper Shipping Name	FLAMMABLE LIQUID, CORROSIVE, N.O.S. STABILIZED (methyl methacrylate, phosphoric acid esters)
Marine Pollutant	No
Special Provisions	If the product's individual container is below 1L 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, Corrosive) – HSR002663

HSNO Classification: 3.1B, 6.1E(Oral, Resp), 6.5B, 8.2B, 8.3A, 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)

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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