



SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **PrimoShield MK-102 - Part B**
 Product Use: Part B of two component coating.
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Protective Coatings and Treatments Ltd**
 Address: 50 Carroll Street
 Dunedin
 9016

Telephone: 021 151 5389
Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 2 November 2021

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

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

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable Liquids Cat. 3	H226	Flammable liquid and vapour.
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
Reproductive toxicity Cat. 1	H360	May damage fertility or the unborn child.
Specific target organ toxicity – single exposure Cat. 3 - respiratory tract irritation	H335	May cause respiratory irritation.
Skin corrosion Cat. 1C	H314	Causes severe skin burns and eye damage.
Serious eye damage Cat. 1	H318	Causes serious eye damage.

Product Name: **PrimoShield MK-102 - Part B**
 Date of SDS: 2 November 2021

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
 Tel: 64 9 475 5240 www.techcomp.co.nz

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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 and lighting.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust, fumes, gas, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

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 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378	In case of fire: Use dry chemical powder and carbon dioxide.

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.
3-aminopropyltriethoxysilane	>50	919-30-2
n-butanol	5-20	71-36-3
propylene glycol monomethyl ether acetate, alpha-	1-10	108-65-6
Non hazardous	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Immediately rinse eyes with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician or transport to hospital.
If on Skin	Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing including footwear. Wash skin and hair with plenty of running water and soap. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
If Swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. Avoid giving milk or oils. Avoid giving alcohol. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If Inhaled	If fumes or combustion products are inhaled remove from contaminated area. 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:	Harmful if swallowed.
Inhalation:	May cause respiratory irritation.
Skin:	Causes severe skin burns. May cause an allergic skin reaction.
Eye:	Causes serious eye damage.
Chronic:	May damage fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed For acute or short-term repeated exposures to highly alkaline materials:

Respiratory stress is uncommon but present occasionally because of soft tissue edema. Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.

Oxygen is given as indicated.

The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

Neutralising agents should never be given since exothermic heat reaction may compound injury.

* Catharsis and emesis are absolutely contra-indicated.

* Activated charcoal does not absorb alkali.

* Gastric lavage should not be used.

Supportive care involves the following:

Withhold oral feedings initially.

If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.

Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.

Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

Injury should be irrigated for 20-30 minutes.
 Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]
 Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Liquid
Hazards from combustion products	Carbon dioxide (CO ₂) Carbon monoxide (CO) Nitrogen oxides (NO _x) Silicon dioxide (SiO ₂) other pyrolysis products typical of burning organic material. May emit corrosive fumes.
Suitable Extinguishing media	Alcohol stable foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.
Precautions for firefighters and special protective clothing	Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
HAZCHEM CODE	3W

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Collect residues in a flammable waste container. Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks.

Do not allow to enter drains and water courses.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry. Dispose of in compliance with local and/or national regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- 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 and lighting.
- Use only non-sparking tools.

- Take precautionary measures against static discharge.
- Do not breathe dust, fumes, gas, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a well-ventilated place. Keep cool.
- Suitable container: Lined metal can or pail, plastic pail, Polyliner drum.
- Check all containers are clearly labelled and free from leaks.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
n-Butyl alcohol [71-36-3]		Ceiling	50	

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 2020 12TH EDITION.

Engineering Controls

Local exhaust ventilation usually required. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Personal Protection Equipment



Eyes	Chemical goggles whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection. Alternatively, a gas mask may replace splash goggles and face shields. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly.
Hands	Wear elbow length PVC gloves. When handling corrosive liquids, wear

	trousers or overalls outside of boots to avoid spills entering boots. Note: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. For esters do not use natural rubber, butyl rubber., EPDM or polystyrene containing materials.
Skin	Wear overalls, PVC apron, PVC protective suit may be required if exposure severe. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).
Respiratory	If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
General	Ensure eyewash unit and safety showers available.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Colourless
Odour	Amine-like odour
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	34°C
Flammability	Flammable
Upper and Lower Explosive Limits	Lower limit: Not available Upper limit: 11.3%
Vapour Pressure	Not available
Vapour Density	Not available
Relative Density	0.93 (water=1)
Water Solubility	Not miscible with water, miscible with polar solvents.
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Sources of ignition.
Incompatible Materials	Amines are incompatible with: · isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. · strong reducing agents such as hydrides, due to the liberation of flammable gas. Avoid strong acids, bases.
Hazardous Decomposition Products	Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	May cause respiratory irritation.
Eye	Causes serious eye damage.
Skin	Causes severe skin burns. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	May damage fertility or the unborn child.
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
3-aminopropyltriethoxysilane	1653 (RAT) mg/kg	>6 316 mg/kg (Rabbit)	>7.35 mg/L(Rat)
n-Butanol	3494 mg/kg (Mouse)	5 235 mg/kg (rabbit)	>17.76 mg/L (Rat)

Section 12. Ecotoxicological Information

Harmful to aquatic life.

Product:	
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Individual component information (Please refer to www.epa.govt.co.nz for full details):**3-aminopropyltriethoxysilane**

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72	Algae or other aquatic plants	1.3mg/l	2
EC50	48	Crustacea	331mg/l	2
LC50	96	Fish	>934mg/l	2
EC50	72	Algae or other aquatic plants	603mg/l	2
BCF	672	Fish	<0.53	7

n-butanol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	96	Algae or other aquatic plants	225mg/l	2
NOEC(ECx)	504	Crustacea	4.1mg/l	2
EC50	48	Crustacea	>500mg/l	1
LC50	96	Fish	100-500mg/l	4
EC50	72	Algae or other aquatic plants	>500mg/l	1

Propylene glycol monomethyl ether acetate, alpha-isomer

Endpoint	Test Duration (hr)	Species	Value	Source
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LC50	96	Fish	>100mg/l	2
EC50	48	Crustacea	373mg/l	2
NOEC(ECx)	336	Fish	47.5mg/l	2
EC50	72	Algae or other aquatic plants	>1000mg/l	2
EC50	96	Algae or other aquatic plants	>1000mg/l	2

Do not allow to enter waterways.

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" and that the label also has the appropriate Pictograms from section 2, waste type identifier, and the business name, address, and phone number.

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	2920
Class - Primary	8
Subclass	3
Packing Group	II
Proper Shipping Name	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (contains n-butanol and 3-aminopropyltriethoxysilane)
Marine Pollutant	No
Special Provisions	If the product's individual container is below 1L/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 2020

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

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	250L
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	10 000L
Secondary Containment	10 000L
Restriction of Use	Only use for the intended purpose.

Glossary

Cat	Category
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

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2020 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

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand distributor, if further information is required.

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