PROPSPEED FOULFREE AIRMAR CERTIFIED TRANSDUCER COATING*

*AIRMAR certifies that the application of Foulfree™ coating on its transducers results in no loss in transducer performance.

Foulfree
Safety Data Sheet

Section 1 Identification of the Material and the Supplier

Product:	AIRMAR Foulfree by Propspeed
Product Code:	Airmar Foulfree 15ml kit: FF15K
Restriction of Use:	Refer to Section 15
Product Use:	Protective coating for transducers.
Supplier:	Propspeed International Ltd PO Box 83232 Edmonton Auckland New Zealand **www.propspeed.com**
Telephone: Fax:	+64 9 524 1470 +64 9 813 5246
Emergency Response Telephone: (24 hours, 365 days)	New Zealand 0800 243 622 Australian 1800 127 406 Global Access + 64 4 917 9888
NZ National Poisons Centre Telephone:	0800 POISON (0800 764 766)
Date of SDS Preparation:	24 October 2019, Version 1

Section 2 Hazards Identification

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

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

GHS Pictograms:

Flammable Chronic Irritant

GHS Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1C	H226	Flammable liquid and vapour.	Flam. Liq. 3
6.1E (dermal)	H313	May be harmful in contact with skin.	Acute Tox. 5
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8B	H361	Suspected of damaging fertility or the unborn child	Repr. 2
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
6.9N	H336	May cause drowsiness or dizziness.	STOT SE 3
9.1D	H402	Harmful to aquatic life (chronic).	Aqua. 4
9.3C	H433	Harmful to terrestrial vertebrates.	-

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, ventilati0n and 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.
P273	Avoid release to the environment.
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P362	Take off contaminated clothing and wash before re-use.
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.
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.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use AFFF alcohol compatible foam or water spray 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

Section 3 Composition / Information on Hazardous Ingredients

Hazard Component

Ingredient name	CAS No.	Content Weight %
1-Propanamine, 3-(triethoxysilyl)-	919-30-2	0.1 - 1
Xylene	1330-20-7	5 - 10
Ethylbenzene	100-41-4	5 - 10
White mineral oil (Pefroleum)	8042-47-5	1 - 5
2-Butanone, oxime	96-29-7	0.1 - 1

Section 4 First Aid Measures

Burns:	Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
If in Eyes	Immediately flush with plenty of water. Remove any contact lenses and open eyes wide apart. Call an ambulance and continue flushing during transportation to hospital. Bring these instructions.
If on Skin	Remove contaminated clothing immediately and wash skin with soap and water. Important to remove the substance from the skin immediately. Continue to rinse for at least 15 minutes and seek medical attention.
If Swallowed	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.
If Inhaled	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if needed.

Most important symptoms and effects, both acute and delayed

Symptoms

Ingestion:	Not applicable
Inhalation:	Not applicable.
Skin:	May be harmful in contact with skin. Causes skin irritation.
Eye:	Causes serious eye irritation.
Chronic:	Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Section 5 Fire Fighting Measures

Hazard Type	Flammable liquid
Hazards from decomposition products	Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Hydrogen, nitrogen products.
Suitable Extinguishing media	On large fires use AFFF alcohol compatible foam or water spray (fog). On small fires use AFFF alcohol compatible foam, CO_2 or water spray (fog). Water can be used to cool fire exposed containers. Most fire extinguishing media will cause hydrogen release. Thus, in poorly ventilated or confined spaces, the accumulation of hydrogen may result in flash fire or explosion if ignited. Applying foam may release flammable hydrogen gas that can be trapped under the foam. Unsuitable: Dry powder. Do not allow extinguishing medium to contact container contents
Precautions for firefighters and special protective clothing	A self-contained respirator and protective clothing should be worn. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool. Vapours may form explosive mixtures with air.
HAZCHEM CODE	3Y

Section 6 Accidental Release Measures

Wear protective PVC gloves, chemical goggles and PVC boots. Contain spill with earth and sand. Where practical, transfer spilt material to clean polyethylene containers for disposal. Transfer contaminated earth or sand into polyethylene containers for disposal. Wash down area with excess water. Do not allow to drain or watercourse.

Dispose of solid residues in chemical waste disposal area in accordance with relevant Local Council requirements. Use licensed trade waste contractor to dispose of all chemical residues.

Section 7 Handling and Storage

Precautions for safe handling:

- Keep out of reach of children.
- Read label before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- Keep container tightly closed.
- Use explosion proof electrical equipment, ventilation, lighting.
- Ground/bond container and receiving equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Avoid breathing fumes, vapours, or sprays.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing and protective equipment.

Conditions for safe storage:

- Store away from incompatible materials listed in Section 10
- Store in a flameproof, well-ventilated area.
- Electrostatic charges may be generated during transfer of product from its container.
- Ensure that all equipment is electrically earthed.
- Keep container closed and store away from water or moisture.
- This product may evolve hydrogen on storage.
- Vapours may form explosive mixtures with air.
- Do not store with oxidizing agents.
- Store locked up.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	CAS	WES-TWA		WES-STEL	
		ppm	mg/m^3	ppm	mg/m^3
Xylene	1330-20-7	50	217	-	-
Ethylbenzene	100-41-4	20	87	-	-

NZ Workplace Exposure Standard and Biological Exposure Indices - Nov 2017. *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.

Engineering Controls:
Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapours. An eye wash bottle must be available at the work site. Mix and prepare in a place with efficient exhaust ventilation.

Personal Protection Equipment

Respiratory	Suitable respiratory protection should be worn in confined spaces or in case of inadequate ventilation. A suitable respirator must be worn if an aerosol or mist is generated.
Hands	Wear protective gloves. Nitrile gloves are recommended.
Eyes	Tight fitting safety goggles or face shield should be used. Avoid wearing contact lenses.
Skin	Wear impervious overalls if significant skin contact is likely to occur.
Hygiene	Exercise proper industrial hygiene practices. Wash hands after handling, especially before eating, smoking or drinking. Contaminated clothing should be removed immediately.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Translucent
Odour	Solvent / Petrol
Odour Threshold	Not available
pH	Not applicable (solvent based product)
Boiling Point	135 - 145^{0}C
Melting Point	Not available
Freezing Point	Not available
Flash Point	28.2^{0}C
Flammability	Not available
Upper and Lower Explosive Limits	1.1 – 7 vol %
Vapour Pressure	1335 Pa
Relative Vapour Density	3.7 (air=1)
Specific Gravity	0.94 - 1.1
Water Solubility	Insoluble in water, soluble in organic solvents
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity @ 25°C	Not available
Particle Characteristics	Not available

Section 10 Stability and Reactivity

Stability of Substance	Stable under normal conditions.
Possibility of hazardous reactions	No data available.
Conditions to Avoid	Avoid heat, flames and other sources of ignition.
Incompatible Materials	Hydrogen is liberated on contact with water, alcohols, acidic or basic materials, many metals or metallic compounds and can form explosive mixtures in the air. Can react with strong oxidizing agents.
Hazardous Decomposition Products	Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Hydrogen, nitrogen products.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Small amounts transferred to the mouth by fingers during use should not injure. Swallowing large amounts may cause digestive discomfort. Forms methanol and may cause serious injury to man at doses > 200mg/kg
Dermal	May be harmful if in contact with skin.
Inhalation	Not applicable.
Eye	Causes serious eye irritation.
Skin	Causes skin irritation. Repeated or prolonged contact may cause defatting of the skin leading to dermatitis.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	May cause drowsiness or dizziness.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Ingredient Data

Acute Oral Toxicity

Xylene	LD50 (mouse)	=1700 mg/kg
Ethylebenzene	LD50	=3500 mg/kg
2-Butanone, oxime	LD50	=1440 mg/kg

Inhalation

Xylene	LD50 (rat)	=29.08mg/kg
Ethylebenzene	LD50	=17.2 mg/L 4h

Dermal

2-Butanone, oxime	LD50	=1000 mg/kg

Acute Toxicity

1-Propanamine, 3-(triethoxysilyl)-		=1570 mg/kg

Special circumstances:
Formaldehyde may be produced by thermal decomposition in a fire; Formaldehyde is a suspected carcinogen, toxic by inhalation, and irritating to eyes and the respiratory system. Exposure limits should be strictly respected.

Section 12 Ecotoxicological Information

HSNO Classifications: 9.1D = Harmful to aquatic life.

9.3C = Harmful to terrestrial vertebrates.

Environmental Precautions

Persistence and degradability	Silicone content, biologically not degradable.
Bioaccumulation:	No bioaccumulation predicted
Mobility in Soil	Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil, siloxanes are degraded. This product hydrolyses in water or moist air, releasing methanol and organosilicons. This product contains volatile substances which may spread in the atmosphere.
Other adverse effects	No data available

Section 13 Disposal Considerations

Disposal Method:
Spent media that has removed toxic chemicals should be examined for specific hazards. 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 Flammable Pictogram, 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 and Rail	Marine Transport (IMDG)	Air Transport (IATA)
UN No	1263	1263	1263
Proper Shipping Name	PAINT	PAINT	PAINT
Class	3	3	3
Packing Group	III	III	III
Hazchem	3Y	3Y	3Y

Limited Quantities Statement:

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 Classes: 3.1C, 6.1E(dermal), 6.3A, 6.4A, 6.8B, 6.9B, 6.9N 9.1D, 9.3C

HSNO Controls
Trigger quantities for this substance:

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	500L(>5L), 1500L (<5L), 250L open (3.1C)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L(3.1C)
Emergency Response Plan	10,000L (3.1C, 9.1D)
Secondary Containment	10,000L (3.1C, 9.1D)
Fire Extinguishers	At least 2 x 4.5kg powder extinguishers required when 500L is present in a workplace.
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms
HSW	Health and Safety at Work.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
STOT/SE	Specific target organ toxicity – single exposure
STOT/RE	Specific target organ toxicity – repeated exposure
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 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

Issue Date: 24 October 2019

Review Date: 23 October 2022

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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PROPSPEED

FOULFREE™

AIRMAR® CERTIFIED TRANSDUCER COATING*

*AIRMAR certifies that the application of Foulfree™ coating on its transducers results in no loss in transducer performance.

Foulfree

Technical Data Sheet

Product Line

Foulfree™

Description

Fouling on the face of transducers can reduce their sensitivity, decreasing bottom-echo returns and fish targets. Keep your transducer performing at its peak with Foulfree™. This proprietary clear coat forms a slick surface marine growth can't grab onto, keeping your transducer surface clean and clear.

Typical Uses

As a fouling preventative coating for transducers.

Physical Properties

Binder type	- Silicone Polymer
Solvent	- Aromatic/Aliphatic Blend
Colour	- Clear coating
Finish	- Glossy
Dry time	- 20 minutes touch dry 8 hours hard dry @ 20°C
Recoat time	- Between 8 hours and 5 days at 20°C
Theoretical coverage	- 12m² / Lt
Recommended film build	- 75 microns per coat
Shelf life	- 36 months

Surface Preparation & Application

See application video at www.propspeed.com

Gloves and protective glasses must be worn at all times.

For better adhesion of Foulfree™ Transducer Coating on plastic fairing (polyethylene, polypropylene, nylon, etc.), you may need to use a piece of 40 grit sandpaper—**NOT included. Do NOT sand the transducer housing or face as it will damage the transducer, voiding the manufacturer's warranty.**

STEP 1: SURFACE PREPARATION

Transducer in service:

Remove fouling and/or any previous coatings from the transducer housing and face with the abrasive pad provided.

- In case of heavy fouling, scrape transducer face with a metal putty knife without gouging the surface. Drag the putty knife across the transducer face at a perpendicular angle and follow with a wet sanding block. Never use a power sander or pressure washer on the face of the transducer.

Take care not to scratch or damage the transducer face.

Fairing blocks ONLY:

To improve adhesion between plastic fairing blocks and the Foulfree™ coating, we recommend sanding the fairing block with 40 grit sandpaper – sold separately.

1. Abrade the fairing block with 40 grit sandpaper to achieve a roughened surface.
2. Remove any residue from sanding.

Transducer Face & Housing:

1. Lightly scuff/abrade plastic housing and face of the transducer. Do not scour or deeply scratch the face of the transducer.
2. Tape off any areas you do not wish to coat with the Foulfree™ Transducer Coating.
3. Clean the transducer face with the XDclean wipe provided. Immediately remove any residue with a clean, dry rag. Ensure the surface is 100% clean and dry before proceeding.

STEP 2: APPLICATION

- Squeeze Foulfree™ Transducer Coating onto the provided application brush.
- Gently apply one thin coat to the surfaces that you want to protect from fouling.
- Make sure there are no heavy runs or sags. You'll have 5 to 10 minutes to touch these up.

STEP 3: DRY TIME

- Foulfree™ requires a minimum of 8 hours to dry before launching. In colder conditions, 40–60°F (5–13°C), wait at least 24 hours before launching.
- Foulfree™ can sit out of water for extended periods of time in warm or cold climates with no adverse effects.

Performance & Limitations

Performance

- Zero toxic substances
- Good fouling prevention properties
- Clear coating
- Long service life
- Easily recoated

Limitations

- Soft coating, care required to prevent mechanical damage
- Must be removed completely when recoating
- Contains silicone and careful use is required to prevent contamination of other surfaces
- The Propspeed system is not recommended nor approved for use in aquaculture or contact with food products.

Health & Safety

Clear Coat

Contains organic solvents including xylene. Do not expose to naked flame or high temperature heating equipment. Avoid skin contact. It is recommended that a barrier cream or gloves be used for hands and eye protection is worn. Always ensure adequate ventilation when painting.

Transport

UN No.:	1263
Class:	3b
Hazchem:	3Y
Packing Group:	III

Storage

Do not store close to naked flames or near high temperature heating equipment.

First Aid

If swallowed	- Immediately call a doctor/physician. Rinse mouth with water. Do NOT induce vomiting.
Skin contact	- Wash with soap and water
Eye contact	- Flush with copious quantities of clean water. Seek medical attention.
Inhalation	Remove to fresh air. Seek medical attention.