

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product Description: **SabreFix FRF Fire Rated Expanding Foam -750ml**
 Product Use: Foam
 Restrictions of use: Refer to Section 15

New Zealand Supplier: Sabre Adhesives Ltd
 Address: 42 Cambridge Street South
 Levin, 5510, New Zealand
 Telephone: +64 (0)6 366 0007
Emergency No: **0800 764 766 (National Poison Centre)**

Australian Supplier: Sabre Adhesives Ltd
 Address: Level 6, 10 Herb Elliot Avenue, Sydney NSW, 2127
 Telephone No: +61 2 9098 8244
Emergency No: **13 11 26 (National Poison Line)**

Date SDS Issued: 19 October 2022

Section 2. Hazards Identification

Australia:
 Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

New Zealand:
 Classified as hazardous as per EPA Hazardous Substances (Classification) Notice 2020.

NZ - EPA Approval Code: Aerosols (Flammable, Carcinogenic) - HSR002517

Pictograms



SIGNAL WORD: DANGER

GHS Category	Hazard Code	Hazard Statement
Aerosol Cat. 1	H222	Extremely flammable aerosol.
Aerosol	H229	Pressurised container: may burst if heated.
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Respiratory sensitisation Cat. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.

Carcinogenicity Cat. 2	H351	Suspected of causing cancer.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
specific target organ toxicity – single exposure Cat. 3 respiratory tract irritation	H335	May cause respiratory irritation.

Prevention Code Prevention Statement

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.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P260	Do not breathe dust, fumes, gas, mist, 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.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.

Response Code Response Statement

P312	Call a POISON CENTER or doctor/physician 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.
P304 + P341	IF INHALED: If breathing is difficult, 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.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage Code Storage Statement

P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Disposal Code Disposal Statement

P501	Dispose of according to the local authorities
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Section 3. Composition of hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
4,4´-methylenediphenyl diisocyanate, isomers and homologues	30 - <60%	9016-87-9
Reaction products of phosphoryl trichloride and 2-methyloxirane	10 - <30%	1244733-77-4
Polymer with 2-Butyne-1,4-Diol and (Chloromethyl-)Oxirane, Brominated, Dehydrochlorinated, Methoxylated	10 - <30%	86675-46-9
Isobutane	<10 %	75-28-5

dimethyl ether	<10 %	115-10-6
Propane	<10 %	74-98-6
triethyl phosphate	<10 %	78-40-0

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice.
If on Skin	Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.
If Swallowed	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, give further water and get to a doctor or hospital quickly. Immediately call a POISON CENTER or doctor/physician.
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. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Eye contact:	Causes serious eye irritation.
Ingestion:	Not applicable.
Inhalation:	May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin:	Causes skin irritation. May cause an allergic skin reaction.
Chronic:	Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Highly Flammable Aerosol
Hazards from products	As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
Suitable Extinguishing media	If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO2). IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.
Precautions for firefighters and special protective clothing	Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit). Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.
HAZCHEM CODE	2YE

Section 6. Accidental Release Measures

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

Section 7. Handling and Storage

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.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Do not breathe dust, fumes, gas, mist, vapours or 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.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.
- In case of inadequate ventilation wear respiratory protection.
- Keep containers hermetically sealed. Avoid leaks from the container.
- Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products.
- Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Storage:

- Store locked up.
- Store in a cool, well-ventilated place. Keep container tightly closed.
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
- Isolate from incompatible materials detailed in Section 10.
- Keep containers tightly closed, in a cool, well ventilated place.
- Storage class: Flammable compressed gas storage.

Section 8 Exposure Controls / Personal Protection

Exposure Limit Values:

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance		TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Dimethylether	[115-10-6]	400	766	500	958

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

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Date of SDS: 19 October 2022 Tel: +64 9 475 5240 WWW.techcomp.co.nz

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 APRIL 2022 13TH EDITION.

Engineering Controls

In accordance with the order of importance to control professional exposure it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment.

Personal Protection Equipment



Eyes	Wear chemical splash goggles and face shield. Avoid wearing contact lenses.
Hands and Skin	NON-disposable chemical protective gloves. Disposable clothing for protection against chemical risks, with antistatic and fireproof properties.
Respiratory	Filter mask for gases, vapours and particles.

Section 9 Physical and Chemical Properties

Appearance	Aerosol
Colour	Red
Odour	Not available
Odour Threshold	Not available
pH	Not available
Boiling Point	-12 °C (Propellant)
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	<300000 Pa (300 kPa) @ 50°C
Vapour Density	Not available
Density @ 20°C	1053 kg/m ³
Solubility in water	Not applicable
Partition Coefficient:	Not applicable
Auto Ignition temp	460°C (propellant)
Oxidising	Not applicable
Viscosity	Not applicable
Percent Volatile	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	Stable at normal ambient temperatures and when used as recommended.
Conditions to Avoid	Avoid direct sunlight.
Incompatible Materials	Strong oxidising agents. Strong acids. Alkalis or strong bases.
Hazardous Decomposition Products	Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO ₂), carbon monoxide and other organic compounds.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
Eye	Causes serious eye irritation.
Skin	Causes skin irritation. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Suspected of causing cancer.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	May be fatal if swallowed and enters airways.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	2485.82 mg/kg (Calculation method)	0 %
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	23.34 mg/L (4 h) (Calculation method)	0 %

Acute Toxicity for components:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal / LC50 inhalation	
Polymer with 2-Butyne-1,4-Diol and (Chloromethyl-)Oxirane, Brominated, Dehydrochlorinated, Methoxylated CAS: 86675-46-9	917 mg/kg	>5000 mg/kg	Rat
	>5000 mg/kg	>20 mg/L	
	>5000 mg/kg	>20 mg/L	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	632 mg/kg	>5000 mg/kg	Rat
	>5000 mg/kg	>20 mg/L	
	>5000 mg/kg	>20 mg/L	
triethyl phosphate CAS: 78-40-0	500 mg/kg (ATEi)	>5000 mg/kg	
	>5000 mg/kg	>20 mg/L	
	>5000 mg/kg	>20 mg/L	
4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9	>5000 mg/kg	>5000 mg/kg	
	>5000 mg/kg	11 mg/L (ATEi)	
	>5000 mg/kg	>5000 mg/kg	
Isobutane CAS: 75-28-5	>5000 mg/kg	>5000 mg/kg	
	>5000 mg/kg	>5 mg/L	
	>5000 mg/kg	>5000 mg/kg	
Propane CAS: 74-98-6	>5000 mg/kg	>5000 mg/kg	
	>5000 mg/kg	>5 mg/L	
	>5000 mg/kg	>5000 mg/kg	
dimethyl ether CAS: 115-10-6	>5000 mg/kg	>5000 mg/kg	
	>5000 mg/kg	308.5 mg/L (4 h)	Rat
	>5000 mg/kg	>5000 mg/kg	

Section 12. Ecotoxicological Information

The experimental information related to the eco-toxicological properties of the product itself is not available Contains phosphates. Excessive discharge may cause eutrophication.

Acute Toxicity:

Identification	Concentration		Species	Genus
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	LC50	100 mg/L (96 h)	Danio rerio	Fish
	EC50	131 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	82 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae

Chronic Toxicity:

Identification	Concentration		Species	Genus
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	NOEC	Non-applicable		
	NOEC	32 mg/L	Daphnia magna	Crustacean

Persistence and degradability:

Identification	Degradability		Biodegradability	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	BOD5	Non-applicable	Concentration	20 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	14 %

Bioaccumulative Potential:

Identification	Bioaccumulation potential	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	BCF	8
	Pow Log	3.17
	Potential	Low
Isobutane CAS: 75-28-5	BCF	27
	Pow Log	2.76
	Potential	Low
Propane CAS: 74-98-6	BCF	13
	Pow Log	2.86
	Potential	Low

Mobility in Soil:

Identification	Absorption/desorption		Volatility	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	Koc	324.2	Henry	6E-3 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable
Isobutane CAS: 75-28-5	Koc	35	Henry	120576.75 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	9.84E-3 N/m (25 °C)	Moist soil	Yes
dimethyl ether CAS: 115-10-6	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1.136E-2 N/m (25 °C)	Moist soil	Non-applicable
Propane CAS: 74-98-6	Koc	460	Henry	71636.78 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7.02E-3 N/m (25 °C)	Moist soil	Yes
triethyl phosphate CAS: 78-40-0	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2.961E-2 N/m (25 °C)	Moist soil	Non-applicable

Section 13. Disposal Considerations

Disposal Method: Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product.

Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain

Precautions: Ensure waste container containing recovered product is labelled "Hazardous Waste – Flammable,". Do not allow to enter waterways.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in Australia; ADG 7
This product is classified as a Dangerous Good for transport: NZS 5433:2020



Road and Rail Transport

Un No 1950
Class-primary 2.1
Packing Group None Allocated
Proper Shipping Name AEROSOLS

Air Transport

Un No 1950
Class-primary 2.1
Packing Group None Allocated
Proper Shipping Name AEROSOLS

Marine Transport

Un No 1950
Class-primary 2.1
Packing Group None Allocated
Proper Shipping Name AEROSOLS

Section 15 Regulatory Information

Australia:

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Poison Schedule No: Not Scheduled

New Zealand:

Classified as hazardous as per EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval no: Aerosols (Flammable, Carcinogenic) - HSR002517

Trigger quantities for this substance:

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	3000L (AWC)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	3000L (AWC)
Emergency Response Plan	1000L
Secondary Containment	1000L
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

Cat	Category
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.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

Australia:

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. Globally Harmonised System of classification and labelling of chemicals.

New Zealand:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2020.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
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 Australian Manufacturer or New Zealand distributor, if further information is required.

Issue Date: 19 October 2022

Review Date:

19 October 2027