SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	SabreFix LF Expansion Foam
Product Use:	Gun Grade Expanding Foam
New Zealand Supplier:	Sabre Adhesives Ltd
Address:	40-42 Cambridge St 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 Ave, Sydney, NSW, 2127
Telephone No:	+61 2 9098 8244
Emergency No:	**13 11 26 (National Poison Line)**
Date SDS Issued:	2 November 2020 v2

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

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

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

Pictograms

Flammable Toxic/ Irritant Chronic

SIGNAL WORD: DANGER

HSNO Class.	Hazard Code	Hazard Statement	GHS Category
2.1.2A	H222 H229	Extremely flammable aerosol. Pressurised container: May burst if heated	Flam. Aero. 1
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.1D (inh)	H332	Harmful if inhaled.	Acute Tox. 4
6.1E (Resp)	H335	May cause respiratory irritation.	STOT SE 3
6.3A	H315	Causes skin irritation.	Skin Irrit. 2

6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Resp. Sens. 1
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.7B	H351	Suspected of causing cancer.	Carc. 2
6.9B (RE)	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label 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 fumes or vapours.
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 gloves clothing.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.

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.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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

Disposal Code	Disposal Statement
P501	Dispose of according to the local authorities

Section 3. Composition of hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.

4,4´-methylenediphenyl diisocyanate, isomers and homologues	30-<50	9016-87-9
Phosphoric trichloride, reaction products with propylene oxide	10-<20	1244733-77-4
Isobutane	5-<10	75-28-5
1,1-difluoroethane	5-<10	75-37-6
Dimethyl ether	5-<5	115-10-6

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. If eye irritation persists: Get medical advice.
If on Skin	Take off contaminated clothing and wash before re-use. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/ attention.
If Swallowed	Rinse mouth. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.
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:

Ingestion:	Irritation in the throat, abdominal pain, nausea and vomiting
Inhalation:	Headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness. Causes respiratory irritation.
Skin:	Inflammation, redness, itchiness.
Eye:	Causes serious eye irritation. Redness, lacrimation.

Section 5. Fire Fighting Measures

Hazard Type	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 (CO_2). IT IS RECOMMENDED NOT to use tap 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).
HAZCHEM CODE	**2R**

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

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:

- 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 or hot surfaces. No smoking.
- 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. Consult section 10 for information on conditions and materials that should be avoided.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Do not breathe fumes or vapours.
- 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 gloves clothing.
- Use personal protective equipment as required.
  In case of inadequate ventilation wear respiratory protection.

Storage:

- Store locked up.
- Protect from sunlight. Do not expose to temperatures minimum 5 ^{0}C exceeding 30 °C.
- Isolate from incompatible materials detailed in Section 10.

Section 8 Exposure Controls / Personal Protection

Exposure Limit Values:
WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**
Dimethylether (2001) [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 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.

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Phosphoric trichloride, reaction products with propylene oxide	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1244733-77-4	Dermal	8 mg/kg	Non-applicable	2,08 mg/kg	Non-applicable
EC: 911-815-4	Inhalation	22,4 mg/m³	Non-applicable	5,82 mg/m³	Non-applicable
Dimethyl ether	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 115-10-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 204-065-8	Inhalation	Non-applicable	Non-applicable	1894 mg/m³	Non-applicable
2,2´-dimorpholinyldiethyl ether	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 6425-39-4	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
EC: 229-194-7	Inhalation	Non-applicable	Non-applicable	7,28 mg/m³	Non-applicable

DNEL (General population):

Identification	Short exposure		Long exposure	
	Systemic	Local	Systemic	Local

Phosphoric trichloride, reaction products with propylene oxide	Oral	Non-applicable	Non-applicable	0,52 mg/kg	Non-applicable
CAS: 1244733-77-4	Dermal	4 mg/kg	Non-applicable	1,04 mg/kg	Non-applicable
EC: 911-815-4	Inhalation	11,2 mg/m³	Non-applicable	1,46 mg/m³	Non-applicable
Dimethyl ether	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 115-10-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 204-065-8	Inhalation	Non-applicable	Non-applicable	471 mg/m³	Non-applicable
2,2´-dimorpholinyldiethyl ether	Oral	Non-applicable	Non-applicable	0,5 mg/kg	Non-applicable
CAS: 6425-39-4	Dermal	Non-applicable	Non-applicable	0,5 mg/kg	Non-applicable
EC: 229-194-7	Inhalation	Non-applicable	Non-applicable	1,8 mg/m³	Non-applicable

PNEC:

Identification				
Phosphoric trichloride, reaction products with propylene oxide	STP	7,84 mg/L	Fresh water	0,64 mg/L
CAS: 1244733-77-4	Soil	1,7 mg/kg	Marine water	0,064 mg/L
EC: 911-815-4	Intermittent	0,51 mg/L	Sediment (Fresh water)	13,4 mg/kg
	Oral	11,6 g/kg	Sediment (Marine water)	1,34 mg/kg
Dimethyl ether	STP	160 mg/L	Fresh water	0,155 mg/L
CAS: 115-10-6	Soil	0,045 mg/kg	Marine water	0,016 mg/L
EC: 204-065-8	Intermittent	1,549 mg/L	Sediment (Fresh water)	0,681 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,069 mg/kg
2,2´-dimorpholinyldiethyl ether	STP	100 mg/L	Fresh water	0,1 mg/L
CAS: 6425-39-4	Soil	1,58 mg/kg	Marine water	0,01 mg/L
EC: 229-194-7	Intermittent	1 mg/L	Sediment (Fresh water)	8,2 mg/kg
	Oral	10 g/kg	Sediment (Marine water)	0,82 mg/kg

Engineering Controls

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits.

Personal Protection Equipment

Eyes	Safety glasses with side shields. Avoid wearing contact lenses.
Hands and Skin	NON-disposable chemical protective gloves. Disposable clothing for protection against chemical risks, with antistatic and fireproof properties. Safety footwear for protection against chemical risk, with antistatic and heat resistant properties.
Respiratory	Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If exposure levels are likely to be exceeded, use a full face mask fitted with an organic AXP3 filter for short term low level exposures. For long term or high level exposures, compressed airline breathing apparatus should be used.
Hygiene measures	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Section 9 Physical and Chemical Properties

Appearance	Aerosol
Odour	Characteristic
Odour Threshold	Not applicable
pH	Not applicable
Boiling Point	342°C

Melting Point	Not applicable
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Flammable aerosol
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	Not available
Density @ 20^{0}C	1188 kg/cm^3
Relative Density @ 20^{0}C	1.188
Solubility in water	Not applicable
Partition Coefficient:	Not applicable
Auto-ignition Temperature	240^{0}C (propellant)
VOC(Supply)	13.23% weight
VOC density @ 20^{0}C	157.2 kg/m^3
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Avoid heat, sparks, flames and any other sources of ignition.
Incompatible Materials	Combustible materials
Hazardous Decomposition Products	carbon dioxide (CO_2), carbon monoxide and other organic compounds.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes respiratory irritation.
Eye	Causes severe irritation to eyes.
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	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Bioaccumulative potential:

Identification	Bioaccumulation potential	
Isobutane	BCF	27
CAS: 75-28-5	Pow Log	2,76
EC: 200-857-2	Potential	Low
	BCF	13

Propane CAS: 74-98-6 EC: 200-827-9	Pow Log	2,86
	Potential	Low
Butane CAS: 106-97-8 EC: 203-448-7	BCF	33
	Pow Log	2,89
	Potential	Moderate
2,2´-dimorpholinyldiethyl ether CAS: 6425-39-4 EC: 229-194-7	BCF	3
	Pow Log	
	Potential	Low

Mobility in soil:

Identification	Absorption/desorption		Volatility	
Isobutane CAS: 75-28-5 EC: 200-857-2	Koc	35	Henry	1,206E+5 Pa·m^3/mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	9840 N/m (25 ºC)	Moist soil	Yes
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	11360 N/m (25 ºC)	Moist soil	Non-applicable
Propane CAS: 74-98-6 EC: 200-827-9	Koc	460	Henry	7,164E+4 Pa·m^3/mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7020 N/m (25 ºC)	Moist soil	Yes
Butane CAS: 106-97-8 EC: 203-448-7	Koc	900	Henry	9,626E+4 Pa·m^3/mol
	Conclusion	Low	Dry soil	Yes
	Surface tension	11870 N/m (25 ºC)	Moist soil	Yes
2,2´-dimorpholinyldiethyl ether CAS: 6425-39-4 EC: 229-194-7	Koc	786	Henry	2E-9 Pa·m^3/mol
	Conclusion	Low	Dry soil	No
	Surface tension	Non-applicable	Moist soil	No

Persistence and degradability	Not data available
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method: Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Non-emptied aerosol: Dispose of wastes in an approved waste disposal facility.

Precautions and methods to avoid: 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 5433:2012

Road and Rail Transport

UN No:	1950
Class-primary	2
Packing Group	2.1
Proper Shipping Name:	AEROSOLS, FLAMMABLE

Air Transport

UN No:	1950
Class-primary	2
Packing Group	2.1
Proper Shipping Name:	AEROSOLS, FLAMMABLE

Marine Transport

UN No:	1950
Class-primary	2
Packing Group	2.1
Proper Shipping Name:	AEROSOLS, FLAMMABLE

Limited quantities: 1 L

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.

Classified as a Schedule 5 Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

New Zealand:

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017
EPA Approval Code: Aerosols (Flammable, Toxic) – HSR002517

HSNO Classification: 2.1.2A, 6.1D(oral, inh), 6.3A, 6.4A, 6.5A/B, 6.7B, 6.9B

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	3000 L (AWC)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L (6.1D)
Emergency Response Plan	1000L (6.1D)
Secondary Containment	1000L (6.1D)
Fire Extinguisher	3000 L (AWC)
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

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 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

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.

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