SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	Sabre Grip S50 Canister Spray Adhesive
Product Use:	Contact Adhesive.
Restriction 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:	3 May 2023 v4

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

NZ - EPA Approval Code: Surface Coatings and Colourants (Subsidiary) - HSR002670

Pictograms

SIGNAL WORD: DANGER

GHS Category	Hazard Code	Hazard Statement
Flammable gas Cat. 1A	H220	Extremely flammable gas.
Liquefied Gas	H280	Contains gas under pressure may explode if heated.
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Hazardous to the aquatic environment chronic Cat. 3	H412	Harmful to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P362	Take off contaminated clothing and wash it before reuse.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	In case of leakage, eliminate all ignition sources.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P403	Store in a well-ventilated place.

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

Section 3. Composition of hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Methyl Acetate	30 - 40	79-20-9
Naphtha petroleum, light, hydrotreated	<10	64742-49-0
LPG	30 - 40	68476-85-7

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Take the patient to the nearest eye wash, shower or other source of clean water. Open the eyelid(s) wide to allow the material to evaporate. Gently rinse the affected eye(s) with clean, cool water for at least 15 minutes. Have the patient lie or sit down and tilt the head back. Hold the eyelid(s) open and pour water slowly over the eyeball(s) at the inner corners, letting the water run out of the outer corners. The patient may be in great pain and wish to keep the eyes closed. It is important that the material is rinsed from the eyes to prevent further damage.
Ensure that the patient looks up, and side to side as the eye is rinsed in order to better reach all parts of the eye(s). DO NOT allow the patient to rub the eyes. DO NOT allow the patient to tightly shut the eyes. DO NOT introduce oil or ointment into the eye(s) without medical advice. DO NOT use hot or tepid water. 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 occurs: Get medical advice/ attention.

If Swallowed — Rinse mouth thoroughly with water. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter

	the lungs. 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:	Refer to Section 11 for further information.
Inhalation	Not applicable.
Ingestion	Not applicable.
Skin contact	Causes skin irritation.
Eye contact	Causes eye irritation.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Aerosolised liquid (canister). Will form explosive mixtures with air. Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration. Vapours may travel to source of ignition and flash back. Containers may explode when heated - Ruptured cylinders may rocket.
Hazards from products	Fire may produce irritating, poisonous or corrosive gases. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions
Suitable Extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED SAFELY: OTHERWISE: LEAVE GAS TO BURN.
Precautions for firefighters and special protective clothing	Wear full body protective clothing with breathing apparatus. May be violently or explosively reactive. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation. Fight fire from a safe distance, with adequate cover. 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	**2YE**

Section 6. Accidental Release Measures

Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes.

Prevent, by any means available, spillage from entering drains or water course.

Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Approach the spillage from upwind. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Small

Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush away spillage with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Section 7. Handling and Storage

Handling:

- Read carefully and follow all instructions.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately. Check for bulging containers. Vent periodically Always release caps or seals slowly to ensure slow dissipation of vapours.

Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store in a well ventilated area.
- Check that containers are clearly labelled and free from leaks.
- Keep container tightly closed and protect from sunlight.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance		TWA ppm	TWA mg/m^3	STEL ppm	STEL mg/m^3
Methyl acetate	[79-20-9]	200	606	250	757
LPG (Liquefied petroleum gas)	[68476-85-7]	1000	1800	-	-

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 APRIL 2022 13TH EDITION.

Engineering Controls

Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.
Work should be undertaken in an isolated system such as a "glove-box" . Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.
Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.
Open-vessel systems are prohibited.
Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.
Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient

volume to maintain correct operation of the local exhaust system.
For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas). Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.
Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.

Personal Protection Equipment:

Eyes	Wear chemical goggles with side shields. Avoid wear contact lenses.
Hands	Insulated gloves: NOTE: Insulated gloves should be loose fitting so that may be removed quickly if liquid is spilled upon them. Insulated gloves are not made to permit hands to be placed in the liquid; they provide only short-term protection from accidental contact with the liquid.
Skin	Wear non-sparking protective boots and static-free clothing.
Respiratory	Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.
Other	Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	AX-AUS / Class 1	-	AX-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	AX-2	AX-PAPR-2
up to 50 x ES	-	AX-3	-
50+ x ES	-	Air-line**	-

Section 9 Physical and Chemical Properties

Appearance	Liquified Gas (canister)
Odour	Not available
Odour Threshold	Not applicable
pH	Not applicable
Boiling Point	40^0C
Melting Point / Freezing Point	-97^0C
Freezing Point	Not applicable
Flash Point	-104^0C
Flammability	Highly Flammable
Upper and Lower Explosive Limits	Not available

Vapour Pressure	46.86 kPa
Vapour Density (air=1)	2.93
Relative Density (water=1)	0.741
Solubility in water	Immiscible
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not available
Volatile organic Component	Not available
VOC	577.02 g/L
Particle Characteristics	Not applicable
Evaporation Rate	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable at normal ambient temperatures and when used as recommended. Stable at normal ambient temperatures and when used as recommended.
Conditions to Avoid	Avoid heat, sparks, flames and any other sources of ignition.
Incompatible Materials	Oxidising and combustible materials.
Hazardous Decomposition Products	Thermal decomposition or combustion products may include the following substances: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. The main effects of simple esters are irritation, stupor and insensibility. Headache, drowsiness, dizziness, coma and behavioural changes may Occur.
Eye	Causes severe irritation to eyes and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.
Skin	Causes skin irritation. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream - through, for example, cuts, abrasions or lesions - may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

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 Acetate	3700 mg/kg (rat)	>2000mg/kg (rat)	-
LPG (liquefied petroleum gas)	-	-	658 mg/L/4hr (rat)
Naphtha petroleum, light, hydrotreated	>2000 mg/kg(rat)	>1900 mg/kg (rabbit)	>4.42 mg/L/4h (rat)

Sabre S50 Canister Spray Adhesive:

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production. Generally, linear and branched-chain alkyl esters are hydrolysed to their component alcohols and carboxylic acids in the intestinal tract, blood and most tissues throughout the body. Following hydrolysis the component alcohols and carboxylic acids are metabolized
Oral acute toxicity studies have been reported for 51 of the 67 esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids. The very low oral acute toxicity of this group of esters is demonstrated by oral LD50 values greater than 1850 mg/kg bw
Genotoxicity studies have been performed in vitro using the following esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids: methyl acetate, butyl acetate, butyl stearate and the structurally related isoamyl formate and demonstrates that these substances are not genotoxic.
The JEFCA Committee concluded that the substances in this group would not present safety concerns at the current levels of intake the esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids are generally used as flavouring substances up to average maximum levels of 200 mg/kg. Higher levels of use (up to 3000 mg/kg) are permitted in food categories such as chewing gum and hard candy. In Europe the upper use levels for these flavouring substances are generally 1 to 30 mg/kg foods and in special food categories like candy and alcoholic beverages up to 300 mg/kg foods.

Internationl Program on Chemical Safety: the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Esters of Aliphatic acyclic primary alcohols with aliphatic linear saturated carboxylic acids.; 1998

METHYL ACETATE

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Section 12. Ecotoxicological Information

Harmful to aquatic life with long lasting effects.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Methyl acetate:

Endpoint	Species	Duration	Value LC50/EC50
NOEC(ECx)	Algae or other aquatic plants	72 hr	≥120 mg/L
EC50	Algae or other aquatic plants	72 hr	>120 mg/L
LC50	Fish	96 hr	250 mg/L
EC50	Crustacean	48 hr	1026.7 mg/l

LPG (liquefied petroleum gas):

Endpoint	Species	Duration	Value LC50/EC50
EC50(ECx)	Algae or other aquatic plants	96 hr	7.71 mg/L
LC50	Fish	96 hr	24.11 mg/L
EC50	Algae or other aquatic plants	96 hr	7.71 mg/L

Naphtha petroleum, light, hydrotreated:

Endpoint	Species	Duration	Value LC50/EC50
NOEC(ECx)	Crustacean	504 hr	0.17 mg/L
LC50	Fish	96 hr	4.26 mg/L
EC50	Algae or other aquatic plants	96 hr	64 mg/L
EC50	Crustacean	48 hr	0.64 mg/l

Persistence and degradability	Biodegradation is almost always operative when petroleum mixtures are released into the environment. Methyl Acetate: **Persistence: Water/Soil** LOW **Air** LOW
Bioaccumulative	No data available on product Methyl Acetate: LOW (LogKOW = 0.18)
Mobility in soil	No data available on product Methyl Acetate: MEDIUM (KOC=3.324)
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method: The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous

Precautions and methods to avoid: Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

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 and SNZ HB 5433:2021

Road, Rail, Sea and Air Transport

UN No	3501
Class - Primary	2.1
Proper Shipping Name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S (contains LPG (liquefied petroleum gas).
Marine Pollutant	NO
Special Provisions	274, 362 Limited Quantities: 0

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

EPA Approval Code: Surface Coatings and Colourants (Subsidiary) - HSR002670

Controls in New Zealand:
Trigger quantities for this substance:

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	100kg
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250kg
Emergency Response Plan	300kg
Secondary Containment	300kg
Fire Extinguishers	50kg = 1
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 APRIL 2022 edition.
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: 3 May 2023 Review Date: 3 May 2028