

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: Sabre S60 Canister Spray Adhesive
Product Use: Adhesive
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: 14 April 2023

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.
Liquified Gas	H280	Contains gas under pressure may explode if heated.
Aspiration hazard Cat. 1	H304	May be fatal if swallowed and enters airways.
Eye irritation Cat. 2	H319	Causes serious eye irritation.

specific target organ toxicity - single exposure Cat 3 - Narcotic Effects	H336	May cause drowsiness or dizziness.
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Prevention Code Prevention Statement

P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing fumes, gas, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective clothing as detailed in Section 8.

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.
P331	Do NOT induce vomiting.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	In case of leakage, eliminate all ignition sources.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code Storage Statement

P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P410 + P403	Protect from sunlight. Store in a well-ventilated place.

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.
Dimethyl Ether	35 - 45	115-10-6
Isopentane	15 - 35	78-78-4
Acetone	<10	67-64-1

Section 4. First Aid Measures

Routes of Exposure:

In 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.
In on Skin	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention.
In Swallowed	Do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully.

Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Avoid giving milk or oils. Avoid giving alcohol. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. Immediately call a POISON CENTER or doctor/physician.

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. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: May be fatal if swallowed and enters airways.

Inhalation: May cause drowsiness or dizziness.

Skin: Not applicable.

Eye: Causes serious eye irritation.

Notes to Doctor: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Extremely flammable gas.
Hazards from products	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. BEWARE: Empty solvent, paint, lacquer and flammable liquid drums present a severe explosion hazard if cut by flame torch or welded. Even when thoroughly cleaned or reconditioned the drum seams may retain sufficient solvent to generate an explosive atmosphere in the drum.
Suitable Extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Precautions for firefighters and special protective clothing	Wear breathing apparatus plus protective gloves in the event of a fire. May be violently or explosively reactive. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). 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 the 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

Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition. Do not breathe vapour/spray. Avoid contact with eyes. For personal protection, see Section 8. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If ventilation is inadequate, suitable respiratory protection must be worn. Keep unnecessary and unprotected personnel away from the spillage.

Avoid discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.

Provide adequate ventilation. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. Dispose of waste as per Section 13.

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.
- Avoid breathing fumes, gas, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective clothing as detailed in Section 8.
- Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.
- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- Storage in sealed containers may result in pressure build up 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.
- Electrostatic discharge may be generated during pumping - this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec).
- Do NOT use compressed air for filling discharging or handling operations.
- Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes.
- Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes.
- Do NOT use compressed air for filling, discharging, or handling operations

Storage

- Keep out of reach of children.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Protect from sunlight. Store in a well-ventilated place.
- Do not store with incompatible materials listed in Section 10.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Dimethyl Ether	400	766	500	958
Acetone	500	1,185	1,000	2,375

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

For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

Personal Protection Equipment



Eyes	Safety glasses with side shields, chemical goggles. Avoid wearing 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	Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Non sparking safety or conductive footwear should be considered.
Respiratory	Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent).
General	Keep container tightly sealed when not in use.

Section 9 Physical and Chemical Properties

Appearance	Liquified Gas
Odour	Not available
Odour Threshold	Not available
pH	Not applicable
Boiling Point	-24.8°C
Melting/Freezing Point	-141.5°C
Flash Point	-41.1°C
Flammability	Highly Flammable
Upper and Lower Explosive Limits	LEL: 3.4% volume UEL: 18.2% volume
Vapour Pressure	63 kPa
Vapour Density	1.6 (air=1)
Relative density	0.698 (water=1)
Solubility in water	Immiscible
Partition Coefficient:	Not available
Auto-ignition Temperature	350°C
Decomposition Temperature	Not available
Kinematic viscosity	Not available
Particle Characteristics	Not applicable
Volatile organic compound	561.03 g/L

Section 10. Stability and Reactivity

Stability of Substance	Stable at normal ambient temperatures and when used as recommended.
Conditions to Avoid	Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up.
Incompatible Materials	Strong acids. Strong oxidising agents.
Hazardous Decomposition Products	carbon dioxide (CO ₂). other pyrolysis products typical of burning organic material.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	May cause drowsiness or dizziness. The body's response to such irritation can cause further lung damage. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Eye	Causes severe irritation to eyes.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	May be fatal if swallowed and enters airways. Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733).
STOT/SE	Not applicable.
STOT/RE	Not applicable.
Chronic	<p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Chronic exposure to alkyl ethers may result in loss of appetite, excessive thirst, fatigue, and weight loss.</p> <p>Chronic or repeated exposure to pentanes may cause lung inflammation, fluid in the lungs and nerve damage. It may manifest with dizziness, weight loss, anaemia, nervousness, pain in the limbs and numbness ("pins and needles sensation").</p> <p>Inhalation may result in chrome ulcers or sores in the mucous membranes of the nose, and lung damage.</p>

isopentane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: >25.3 mg/l4h ^[1]	Not Available
	Oral (Rat) LD50: >2000 mg/kg ^[1]	
acetone	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 500 ppm - irritant
	Inhalation(Mouse) LC50: 44 mg/L4h ^[2]	Eye (rabbit): 20mg/24hr -moderate
	Oral (Rat) LD50: 5800 mg/kg ^[2]	Eye (rabbit): 3.95 mg - SEVERE
		Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit): 500 mg/24hr - mild
		Skin (rabbit):395mg (open) - mild
	Skin: no adverse effect observed (not irritating) ^[1]	
dimethyl ether	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: >20000 ppm4h ^[1]	Not Available

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

Section 12. Ecotoxicological Information

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and degradability	The product is expected to be biodegradable.
Bioaccumulation	No data available on bioaccumulation.
Mobility in Soil	No data available.
Other adverse effects	No data available

Toxicity

Isopentane				
Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	72h	Algae or other aquatic plants	1.26mg/l	2
EC50	72h	Algae or other aquatic plants	1.26mg/l	2
LC50	96h	Fish	4.26mg/l	2
EC50	48h	Crustacea	2.3mg/l	1
Acetone				
Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	12h	Fish	0.001mg/L	4
LC50	96h	Fish	3744.6-5000.7mg/L	4
EC50	72h	Algae or other aquatic plants	5600-10000mg/l	4
EC50	96h	Algae or other aquatic plants	9.873-27.684mg/l	4
EC50	48h	Crustacea	6098.4mg/L	5
Dimethyl Ether				
Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	1783.04mg/l	2
EC50	48h	Crustacea	>4400mg/L	2
NOEC(ECx)	48h	Crustacea	>4000mg/l	1
EC50	96h	Algae or other aquatic plants	154.917mg/l	2

Legend: Extracted from 1. IUCALID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isopentane	HIGH	HIGH
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
dimethyl ether	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
isopentane	LOW (LogKOW = 2.7234)
acetone	LOW (BCF = 0.69)
dimethyl ether	LOW (LogKOW = 0.1)

Mobility in soil

Ingredient	Mobility
isopentane	LOW (KOC = 67.7)
acetone	HIGH (KOC = 1.981)
dimethyl ether	HIGH (KOC = 1.292)

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, Chronic" 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: DO NOT allow wash water from cleaning or process equipment to enter drains.

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, Rail, Sea and Air Transport

UN No	3501
Class - Primary	2.1
Packing Group	Non allocated
Proper Shipping Name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (Isopentane)
Marine Pollutant	No

Section 15 Regulatory Information

Product Name: Sabre Grip S60
 Date of SDS: 14 April 2023

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

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

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not applicable
Location Certificate	100 kg (or 100 m ³ for a permanent gas)
Tracking Trigger Quantities	Not applicable
Signage Trigger Quantities	250kg / 100m ³
Fire Extinguisher Quantities	50kg – 1x required
Emergency Response Plan	300kg / 200m ³
Secondary Containment	300kg / 200m ³
Restriction of Use	Only use for the intended purpose.

Section 16	Other Information
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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 13th 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.

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