

Section 1 – Identification of Chemical Product and Company

Code	Description	Size	Colour
75140	Gorilla Contact Spray Adhesive	300 ml	Clear

Recommended use:	Adhesive	
Supplier contact details:	Soudal Ltd	Freephone: 0800 70 10 80
	14 Avalon Drive	Phone: (07) 847 5540
	Nawton	Fax: (07) 847 0324
	Hamilton 3200	Email: info@soudal.co.nz
	New Zealand	Website: www.soudal.co.nz
POISON CENTRE NUMBER: 0800 764 766 (24 hours)		

Section 2 – Hazard Identification

Statement of Hazardous Nature

This product is classified as:

HAZARDOUS SUBSTANCE according to the criteria of HSNO.

REGULATED under NZS5433:2007 Transport of Dangerous Goods on Land

Hazardous Substances and New Organisms (HSNO) classification:

Classification	Hazard statements
Flammable Aerosol Category 1 2.1.2A	H222 Extremely flammable aerosol
Acute Oral Toxicity Category 5 6.1E	H303 May be harmful if swallowed
Skin Effects Category 3 6.3B	H316 Causes mild skin irritation
Eye Effects Category 2 6.4A	H319 Causes serious eye irritation
STOT – SE Narcosis Category 3 6.9	H336 May cause drowsiness or dizziness
Aspiration Category 1 6.1D	H304 May be fatal if swallowed and enters airways
Chronic Aquatic Hazard Category 2 9.1B	H411 Toxic to aquatic life with long lasting effects

HSNO Signal Word :

DANGER



Precautionary Statements:

P102 Keep out of reach of children	P273 Avoid release to the environment
P202 Do not handle until all safety precautions have been read and understood	P391 Collect spillage
P210 Keep away from heat, sparks, open flames and other ignition sources. No smoking	P403+P233 Store in a well-ventilated place. Keep container tightly closed
P211 Do not spray on an open flame or other ignition source	P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C
P229 Pressurised container: May burst if heated	P405 Store locked up
P251 Do not pierce or burn, even after use	
P261 Avoid breathing gas	
P271 Use only outdoors or in a well ventilated area	
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection	

Section 3 - Composition/Information on Ingredients

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
Dimethyl ether	115-10-6	Flammable Gas Category 1; Eye Effects Category 2	40 – 50
Isopentane	78-78-4	Flammable Liquid Category 2; Acute Oral Toxicity Category 5; Skin Effects Category 3; Eye Effects Category 2; Chronic Aquatic Hazard Category 4	20 – 30
Cyclohexane	110-82-7	Flammable Liquid Category 2; Acute Oral Toxicity Category 4; Acute Inhalation Toxicity Category 4; Skin Effects Category 3; Chronic Aquatic Hazard Category 2; Vertebrate Hazard Category 3	1 – 10
Acetone	67-64-1	Flammable Liquid Category 2; Acute Oral Toxicity Category 5; Skin Effects Category 3; Eye Effects Category 2	1 – 10
Ingredients not contributing to classification			balance

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other ingredients not contributing to the classification are also possible.

Section 4 – First Aid Measures

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Eye contact:

Immediately hold the eyelids apart and flush the eye with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin contact:

Flush skin and hair with running water (and soap if available). Remove any adhering solids with industrial skin cleansing cream. DO NOT use solvents. Seek medical attention in the event of irritation.

Inhalation:

Remove to fresh air. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.

Ingestion:

Avoid giving milk or oils. Avoid giving alcohol. Not considered a normal route of entry. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

General advice and advice for physicians:

Treat symptomatically.

You should call The Poisons Information Centre if you feel that you may have been poisoned or irritated by this product. The number is 0800 764766 from anywhere in New Zealand (13 1126 in Australia) and is available at all times. Have this SDS or product label with you when you call.

Section 5 - Fire-Fighting Measures

Extinguishing media:

Foam, Carbon Dioxide, Dry Powder, water spray or fog – large fires only

Fire/ Explosion Hazard

Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition with violent container rupture. Aerosol cans may explode on exposure to naked flames. Rupturing containers may rocket and scatter burning materials. Hazards may not be restricted to pressure effects. May emit acrid, poisonous or corrosive fumes. On combustion, may emit toxic fumes of carbon monoxide (CO).

Advice for fire-fighters:

Alert Fire & Emergency New Zealand and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. 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. 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. Equipment should be thoroughly decontaminated after use. Excessive pressures may develop in a gas cylinder exposed in a fire; this may result in explosion. Cylinders without pressure-relief valves have no provision for controlled release and are therefore more likely to explode if exposed to fire.

Section 6 - Accidental Release Measures

Minor Spills

Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Wear protective clothing, impervious gloves and safety glasses. Shut off all possible sources of ignition and increase ventilation. Wipe up. If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely.

Major Spills

Clear area of all unprotected personnel and move upwind. Alert Fire & Emergency New Zealand and advise them of the location and nature of hazard. May be violently or explosively reactive. Wear full body clothing with breathing apparatus. Prevent by any means available, spillage from entering drains and water-courses. Consider evacuation. Shut off all possible sources of ignition and increase ventilation. No smoking or naked lights within area. Use extreme caution to prevent violent reaction. Stop leak only if safe to do so. Water spray or fog may be used to disperse vapour. DO NOT enter confined space where gas may have collected. Keep area clear until gas has dispersed.

Section 7 - Handling and Storage

Handling:

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. DO NOT incinerate or puncture aerosol cans. DO NOT spray directly on humans, exposed food or food utensils. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Storage:

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can. Store in original containers in approved flammable liquid storage area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Keep containers securely sealed. Contents under pressure. Store away from incompatible materials. Store in a cool, dry, well ventilated area. Avoid storage at temperatures higher than 40 °C. Store in an upright position. Protect containers against physical damage. Check regularly for spills and leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Section 8 - Exposure Controls/Personal Protection

Exposure limits:

CAS no.	Substance or ingredient	WES-TWA		WES-STEL	
115-10-6	Dimethyl ether	400 ppm	766 mg/m ³	500 ppm	956 mg/m ³
110-82-7	Cyclohexane	100 ppm	350 mg/m ³	300 ppm	1050 mg/m ³
67-64-1	Acetone	500 ppm	1185 mg/m ³	1000 ppm	2375 mg/m ³

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Exposure controls:

Control	Protective measure
Eye	Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be



	created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Respiratory	<p>Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate. Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.</p> <p>If required a Type AG mask of sufficient capacity should be used. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)</p>
Skin	<p>Butyl gloves are recommended if skin contact or contamination of clothing is likely, protective clothing should be worn. [AS 2161] Wear protective clothing.</p>



Section 9 - Physical and Chemical Properties

General substance properties:

Property	Details
Appearance	Aerosol
Odour	Hydrocarbon
Odour threshold	No data
pH	No data.
Freezing/melting point	No data. °C
Boiling Point	No data °C
Flash point	No data °C
Flammability	Highly flammable
Upper and lower flammability limits	<div>Lower</div> <div>Upper</div> <div>No data %</div> <div>No data %</div>
Vapour pressure	No data kPa
Vapour Density	No data
Specific gravity/density	No data g/ml
Water solubility	Immiscible
Solubility	No data
Partition Coefficient	No data
Auto-ignition temperature	No data °C
Decomposition Temperature	No data °C
Viscosity	No data mPa.s
Volatile materials	No data %

Section 10 - Stability and Reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

Ignition sources; freezing temperatures; elevated temperatures

Incompatible materials to avoid:

Avoid oxidising agents (nitrates, oxidising acids, chlorine bleaches, pool chlorine etc) as ignition may result

Hazardous decomposition products:

Combustion will result in the release of carbon monoxide (CO), carbon dioxide (CO₂), and other pyrolysis products typical of burning organic material.

Section 11 - Toxicological Information

Summary of Toxicity

Acute toxicity:

Test	Data and symptoms of exposure
Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. 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. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and incoordination. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. Following inhalation, ethers cause lethargy and stupor. Inhaling lower alkyl ethers results in headache, dizziness, weakness, blurred vision, seizures and possible coma. Symptoms of pentane inhalation exposure may include hyperactivity, numbness and a persistent taste of gasoline. Inhalation of high vapour concentrations may result in coughing, headache, mild depression, incoordination, blurred vision, confusion, loss of appetite, nausea, vomiting, irregular heartbeat and unconsciousness. Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure. WARNING: Intentional misuse by concentrating/inhaling contents may be lethal. Rabbits survived 8 hour exposures to cyclohexane at 18500 ppm but 26600 ppm was lethal after 1 hour exposure. A concentration of 12600 ppm produced severe weakness, unconsciousness, increased breathing and convulsions while 3330 ppm failed to elicit an effect. 300 ppm is reported to be irritating to human eyes and mucous membranes.
Oral	Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments Ingestion of pentanes may result in nausea, vomiting, abdominal distension, diarrhoea, bleeding in the mucous membranes and suffocation leading to brain damage and death, while large doses may cause central nervous system depression and irregular heart rhythm. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Dermal	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Spray mist may produce discomfort. 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.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). Not considered to be a risk because of the extreme volatility of the gas. Eye contact with alkyl ethers (vapour or liquid) may produce irritation, redness and tears. Eye-contact with the liquid pentanes may cause irritation of the eye and mucous membranes resulting in pain, drying, redness, swelling and excessive secretion of tears.
Chronic	Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation

	reaction in some persons compared to the general population. Main route of exposure to the gas in the workplace is by inhalation. Chronic exposure to alkyl ethers may result in loss of appetite, excessive thirst, fatigue, and weight loss. 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").
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	Oral	Dermal	Inhalation
Dimethyl ether			LC _{50 rat} 309 mg/L/4hr
Isopentane	LD _{50 rat} >2000 mg/kg		LC _{50 rat} 280 mg/L/4hr
Cyclohexane	LD _{50 rat} 12705 mg/kg		LC _{50 mouse} 35 mg/L/2hr
Acetone	LD _{50 rat} 5800 mg/kg	LD _{50 rat} 20000 mg/kg	LC _{50 rat} 100 mg/L/6hr

Section 12 - Ecological Information

Toxic 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. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

	Fish	Crustacea	Algae
Dimethyl ether	LC _{50 96hr} >4100 mg/L	EC _{50 48hr} >4,400 mg/L NOEC _{48hr} >4000 mg/L	
Isopentane	LC _{50 96hr} 4.26 mg/L	EC _{50 48hr} 2.3 mg/L	EC _{50 72hr} 1.26 mg/L NOEC _{72hr} 7.51 mg/L
Cyclohexane	LC _{50 96hr} 4.53 mg/L	EC _{50 48hr} 0.9 mg/L	EC _{50 72hr} 3.4 mg/L EC _{90 72hr} >500 mg/L NOEC _{72hr} 0.9 mg/L
Acetone	LC _{50 96hr} >100 mg/L	EC _{50 48hr} >100 mg/L	EC _{50 72hr} 20.565 mg/L NOEC _{96hr} 4.95 mg/L

	Persistence Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Dimethyl ether	LOW	LOW	LOW Log KOW 0.1	HIGH KOC 1.292
Isopentane	HIGH	HIGH	LOW Log KOW 2.7234	LOW KOC 67.7
Cyclohexane	HIGH halflife 360d	LOW halflife 3.63d	LOW BCF 242	LOW KOC 165.5
Acetone	LOW halflife 14d	MEDIUM halflife 116.25d	LOW BCF 0.69	HIGH KOC 1.961

Section 13 - Disposal Considerations

DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Consult Local Authority for disposal. Discharge contents of damaged aerosol cans at an approved site. Allow small quantities to evaporate. DO NOT incinerate or puncture aerosol cans. Bury residues and emptied aerosol cans at an approved site. Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Notice 2017.

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled. The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance. Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

Section 14 - Transport Information



Land Transport UNDG

Class or division	2.1
Subsidiary Risk	
UN Number	1950
UN Packing Group	
Shipping Name	Aerosols
Special Provisions	63 190 277 327 344 381
Limited Quantities	1000 ml

Air Transport IATA

ICAO/IATA Class	2.1
ICAO/IATA Subrisk	
UN/ID Number	1950
Packing Group	
Special provision	A145 A167 A802
Cargo only	
Packing instructions	
Maximum Qty/pack	30 kg G
Passenger and Cargo	
Packing instructions	
Maximum Qty/pack	
Passenger & Cargo Limited Quantity	
Packing instructions	
Maximum Qty/pack	
Shipping Name	Aerosols

Marine Transport IMDG

IMDG Class	2.1
IMDG Subrisk	
UN Number	1950
UN Packing Group	
EmS Number	F-D S-U
Special provisions	63 190 277 327 344 381 959
Limited quantities	1000 ml
Marine pollutant	Yes
Shipping Name	Aerosols

Section 15 - Regulatory Information

HSNO approval number and Group Standard:

HSR002515 Aerosols (Flammable)

Group Standard conditions and other regulations:

Condition	Requirement
SDS	Safety data sheet must be available to a person handling the substance within 10 minutes.
Emergency plan	Required when quantities exceed 3000Lt (equivalent)
Certified handler	Not required
Tracking	Not applicable
Bunding and secondary containment	Not required
Signage	Required when quantities exceed 3000Lt equivalent
Hazardous Location Compliance certificate	Required when quantities exceed 3000Lt equivalent
Hazardous Area	Required
Fire extinguishers	Required

National Inventories

Australia	AICS	Y
Canada	DSL	Y
Canada	NDSL	N
China	IECSC	Y
Europe	EINEC/ELINCS/NLP	Y
Japan	ENCS	Y
Korea	KECI	Y
New Zealand	NZIoC	Y
Philippines	PICCS	Y
USA	TSCA	Y

Y = All ingredients are on the inventory

Section 16 – Other Information

Revision History

August 2018

Origination

Abbreviations:

Abbreviation	Description
CAS number	Number assigned to chemical in the Chemical Abstracts Service registry
HAZCHEM code	Code used by fire-fighters to determine correct method of action in the case of fire
HSNO	Hazardous Substances and New Organisms (Act)
ICAO Technical Instructions	International Civil Aviation Organization Technical Instructions
IMDG code	International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO)
LC ₅₀	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD ₅₀	Lethal dose 50% - dose fatal to 50% of the tested population
NZS 5433	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
STEL	Short term exposure limit
TWA	Time weighted average (typically measured as 8 hours)
UN number	United nations number
WES	Workplace exposure standard

References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID). www.epa.govt.nz.
Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 9th Edition (November 2017). www.mbie.govt.nz.

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.

This SDS was prepared by Collievale Enterprises Ltd in accord with the Hazardous Substances (Safety Data Sheets) Notice 2017

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End of MSDS