

Section 1 Identification of Chemical Product and Company

Code	Description	Size	Colour
20255	Gorilla MS Expanding Foam	500 ml	

Recommended use:	Expanding Foam	
HSNO Group Standard	HSR002515	
UN number, shipping name and packaging group:	UN 1950 AEROSOLS	
Supplier contact details:	Soudal Ltd	Freephone: 0800 70 10 80
	134 Kohia Drive	Phone: (07) 847 5540
	Horotiu	
	Hamilton 3288	Email: sales@soudal.co.nz
	New Zealand	Website: www.soudal.co.nz
POISON CENTRE NUMBER: 0800 764 766 (24 hours)		

Section 2 Hazards Identification

Statement of Hazardous Nature

This product is classified as:

HAZARDOUS SUBSTANCE according to the criteria of GHS v7.

REGULATED under NZS5433:2020 Transport of Dangerous Goods on Land

GHS classification:

Classification	GHS Hazard statements
Flammable Aerosol Category 1	H222+H229 heated Extremely flammable aerosol. Pressurised container. May burst if heated

HSNO Signal Word:

DANGER



Precautionary Statements:

P102	Keep out of the reach of children
P103	Read label before use
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P211	Do not spray on an open flame or other ignition source
P251	Do not pierce or burn even after use
P261	Avoid breathing gas
P271	Use only outdoors or in a well-ventilated place
P280	Wear protective gloves, protective clothing, eye protection and face protection
P264	Wash all exposed external body areas thoroughly after handling
P405	Store locked up
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C

P501 Dispose of contents/ container to authorised hazardous or special waste collection points in accordance with local regulation

Section 3. Composition/Information on Ingredients

Ingredient	CAS No.	Individual GHS classification	Concentration (% by Wt.)
Isobutane	75-28-5	Flammable Gas Category 1A	10 – 20
Dimethylether	115-10-6	Flammable Gas Category 1A Eye Irritation Category 2	1 – 10
Propane	74-98-6	Flammable gas Category 1A	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 non-hazardous ingredients 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 continuously for at least 15 minutes 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. Transport to hospital or doctor without delay. 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:

Not considered a normal route of entry

General advice and advice for physicians:

Treat symptomatically.

Section 5 Fire-Fighting Measures

Extinguishing media:

Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam. Presents additional hazard when fire fighting in a confined space. Cooling with flooding quantities of water reduces this risk. Water spray or fog may cause frothing and should be used in large quantities.

SMALL FIRE: Water spray, dry chemical or CO₂

LARGE FIRE: Water spray or fog.

Fire/ Explosion Hazard:

Moderate fire hazard when exposed to heat or flame. When heated to high temperatures decomposes rapidly generating vapour which pressures and may then rupture containers with release of flammable and highly toxic isocyanate vapour. Burns with acrid black smoke and poisonous fumes. Due to reaction with water producing CO₂-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Combustion yields traces of highly toxic hydrogen cyanide HCN, plus toxic nitrogen oxides NO_x and carbon monoxide. 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 Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. 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. DO NOT approach cylinders suspected to be hot. Cool fire-exposed cylinders with water spray from a protected location. If safe to do so, remove containers from path of fire.

FIRE FIGHTING PROCEDURES: The only safe way to extinguish a flammable gas fire is to stop the flow of gas. If the flow cannot be stopped, allow the entire contents of the cylinder to burn while cooling the cylinder and surroundings with water from a suitable distance. Extinguishing the fire without stopping the gas flow may permit the formation of ignitable or explosive mixtures with air. These mixtures may propagate to a source of ignition.

SPECIAL HAZARDS Excessive pressures may develop in a gas cylinder exposed in a fire; this may result in explosion. Cylinders with pressure relief devices may release their contents as a result of fire and the released gas may constitute a further source of hazard for the fire-fighter. 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:

Avoid contamination with water, alkalis and detergent solutions. Material reacts with water and generates gas, pressurises containers with even drum rupture resulting. Clear area of all unprotected personnel and move upwind. Alert Emergency Authority 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 watercourses. 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. Remove leaking cylinders to a safe place. Release pressure under safe, controlled conditions. Burn issuing gas at vent pipes. DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve. Clear area of personnel and move upwind. Alert Fire Brigade 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. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Absorb or cover spill with sand, earth, inert materials or vermiculite. If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. Collect residues and seal in labelled drums for disposal.

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 deg 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.

Suitable Container:

Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.

Section 8 Exposure Controls/Personal Protection**Exposure Limits**

CAS no.	Substance or ingredient	WES-TWA		WES-STEL	
115-10-6	Dimethylether	766 mg/m ³	400 ppm	958 mg/m ³	500 ppm

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. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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	Not generally required. If workplace exposure standards are likely to be exceeded, a Type KAX-P filter is recommended 
Skin	Wear chemical protective gloves, e.g., PE/EVAL/PE. Wear safety footwear or safety gumboots, e.g., Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watchbands should be removed and destroyed. 

Section 9 Physical and Chemical Properties

General substance properties:

Property	Details
Appearance	Aerosol
Odour	Characteristic
pH	Not available
Vapour pressure	No data kPa
Vapour Density	> 1
Viscosity	No data mPa.s
Boiling Point	No data °C

Volatile materials	Not available
Freezing/melting point	Not available
Water Solubility	Immiscible
Specific gravity/density	0.98 g/ml
Flash point	No data °C
Auto-ignition temperature	No data °C
Upper and lower flammability limits	Not available
Corrosiveness	Not available)

Section 10 Stability and Reactivity

Stability:

Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.

Conditions to avoid:

Incompatible materials to avoid:

Oxidising or reducing agents

Hazardous decomposition products:

Carbon monoxide (CO) carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.

Section 11 Toxicological Information

Summary of Toxicity

Test	Data and symptoms of exposure
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs. Isobutane produces a dose dependent action and at high concentrations may cause numbness, suffocation, exhilaration, dizziness, headache, nausea, confusion, incoordination and unconsciousness in severe cases. The paraffin gases are practically not harmful at low doses. Higher doses may produce reversible brain and nerve depression and irritation. The vapour is discomforting WARNING: Intentional misuse by concentrating/inhaling contents may be lethal. The vapour/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis and pulmonary oedema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxiety neurosis, depression and paranoia. Gastrointestinal disturbances are characterised by nausea and vomiting. Pulmonary sensitisation may produce asthmatic reactions ranging from minor breathing difficulties to severe allergic attacks; this may occur following a single acute exposure or may develop without warning for several hours after exposure. Sensitized people can react to very low doses and should not be allowed to work in situations allowing exposure to this material. Continued exposure of sensitised persons may lead to possible long term respiratory impairment. Inhalation hazard is increased at higher temperatures. There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs. There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs
Oral	Strong evidence exists that exposure to the material may cause irreversible damage (other than cancer, mutations and birth defects) following a single exposure by swallowing. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments Accidental ingestion of the material may be seriously damaging to the health of the individual; animal experiments indicate that ingestion of less than 40 gram may be fatal

SAFETY DATASHEET

Dermal	There is strong evidence to suggest that this material, on a single contact with skin, can cause serious, irreversible damage of organs. The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts abraded or irritated skin should not be exposed to this material. Entry into the bloodstream 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. Spray mist may produce discomfort. Exposure to the material may result in a skin inflammation called chloracne. This is characterised by white- and blackheads, keratin cysts, spots, excessive discolouration. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
Eye	Not considered to be a risk because of the extreme volatility of the gas. This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.
Chronic	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Long term exposure to morpholine and some related compounds may produce liver and kidney changes. Animal testing has shown evidence of chronic nose irritation and inflammation, and damage to the eye. This product contains a polymer with a functional group considered to be of high concern. Isothiocyanates may cause hypersensitivity of the skin and airways. Main route of exposure to the gas in the workplace is by inhalation. Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates. The chemistry of reaction of isocyanates, as evidenced by MDI, in biological milieu is such that in the event of a true exposure of small MDI doses to the mouth, reactions will commence at once with biological macromolecules in the buccal region and will continue along the digestive tract prior to reaching the stomach. Reaction products will be a variety of polyureas and macromolecular conjugates with for example mucus, proteins and cell components

Ingredient	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
ATE			
Isobutane			> 13023 ppm/4H
Dimethylether			> 20000 ppm/4H
Propane			364726 ppm/4H

Section 12 Ecological Information

Summary of Ecotoxicity

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.

Ingredient	Fish	Crustacean	Algae
ATE			
Isobutane	LC _{50 96hr} 24 mg/L		EC _{50 96hr} 7.71 mg/L
Dimethylether	LC _{50 96hr} 1783 mg/L	LC _{50 96hr} 4000 mg/L	EC _{50 96hr} 154 mg/L

Ingredient	Persistence Water/ Soil	Persistence Air	Bioaccumulation	Mobility
Isobutane	HIGH	HIGH	LOW	LOW
Dimethylether	LOW	LOW	LOW	HIGH
Propane	LOW	LOW	LOW	LOW

Section 13 Disposal Considerations

Disposal methods:

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT recycle spilled material. Consult State Land Waste Management Authority for disposal. Neutralise spill material carefully and decontaminate empty containers and spill residues with 10% ammonia solution plus detergent or a proprietary decontaminant prior to disposal. DO NOT seal or stopper drums being decontaminated as CO₂ gas is generated and may pressurise containers. Puncture containers to prevent re-use. Bury or incinerate residues at an approved site.

Ensure that the hazardous substance is disposed in accordance with the 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



HAZCHEM not applicable

Land Transport UNDG

UN Number **1950**
 Shipping Name **AEROSOLS**
 Class or division **2.1**
 Subsidiary Risk Not applicable
 UN Packing Group not applicable
 Environmental Hazard not applicable
 Special Provisions **63 190 277 327 344 361**
 Limited Quantities **1000 ml**

Air Transport IATA

UN/ID Number **1950**
 Shipping Name **AEROSOLS, FLAMMABLE**
 ICAO/IATA Class **2.2**
 ICAO/IATA Subrisk Not applicable
 ERG Code **10L**
 Packing Group not applicable
 Environmental Hazard not applicable
 Special provision **A146 A167 A802**
 Cargo only
 Packing instructions **203**
 Maximum Qty/pack **150 Kg**
 Passenger and Cargo
 Packing instructions **203**
 Maximum Qty/pack **75 Kg**
 Passenger & Cargo Limited Quantity
 Packing instructions **Y203**
 Maximum Qty/pack **30Kg G**

Marine Transport IMDG

UN Number **1950**
 Shipping Name **AEROSOLS**
 IMDG Class **2,1**
 IMDG Subrisk Not applicable
 Packing Group not applicable
 Environmental Hazard not applicable

EmS Number
Special provisions
Limited quantities

F-D S-U
63 190 277 327 344 361 959
1000 ml

Section 15 Regulatory Information

HSNO approval number and Group Standard:

HSR002515 Aerosols, Flammable

Group Standard conditions and other regulations:

Condition	Requirement
SDS	Required
Emergency plan	Required when quantities exceed 3000 Lt water capacity
Certified handler	Not required
Tracking	Not applicable
Bunding and secondary containment	Not applicable
Signage	Required when quantities exceed 3000Lt water equivalent
Location Compliance certificate	Flammable Aerosol Category 1 when quantities exceed 3000Lt water equivalent
Hazardous Atmosphere Zone	Required as per AS/NZS60079.10
Fire extinguisher	1 required when quantities exceed 3000Lt water equivalent

National Inventories

Y = All ingredients are on the inventory

Australia	AICS	Y
Canada	DSL	N
Canada	NDSL	N
China	IECSC	Y
Europe	EINEC/ELINCS/NLP	Y
Japan	ENCS	Y
Korea	KECI	N
New Zealand	NZIOC	Y
Philippines	PICCS	Y
USA	TSCA	N
Taiwan	TCSI	Y
Mexico	INSQ	N
Vietnam	NCI	Y
Russia	ARIPS	N

Section 16 Other Information

Revision History:

July 2024	Reviewed and downgraded classifications
June 2024	Reviewed and format updated
October 2020	Origination

Abbreviations:

Abbreviation	Description
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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 5433:2020	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
SDS	Safety data sheet
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 GHS 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 13th Edition (April 2022).

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 in accord with the Hazardous Substances (Safety Data Sheets) Notice 2020
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End of SDS