

TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL QUIN GLOBAL (BV) LTD Chemwatch

Chemwatch Hazard Alert Code: 4

Issue Date: **18/07/2023**Print Date: **18/07/2023**S.REACH.ITA.EN

Version No: 4.5

Other means of identification

Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier			
Product name TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL			
Chemical Name	Not Applicable		
Synonyms	TENSORGRIP		
Proper shipping name			
Chemical formula	Not Applicable		

1.2. Relevant identified uses of the substance or mixture and uses advised against

UFI:9ENY-Q02G-100H-CQMX

Chemical Product Category	PC1 Adhesives, sealants		
Sectors of Use	SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) SU3 Industrial uses: Uses of substances as such or in preparations* at industrial sites		
	SU18 Manufacture of furniture		
Sector of Use - Sub Category	SU19 Building and construction work		
Relevant identified uses	Application is by spray atomisation from a hand held aerosol pack		
Uses advised against	No specific uses advised against are identified.		

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	JIN GLOBAL (BV) LTD	
Address	Address De Droogmakerij 1851 LX Heiloo Netherlands	
Telephone	Telephone 0031 72 520 66 97	
Fax	Not Available	
Website	www.quinglobal.com	
Email	technicalhelp.uk@quinglobal.com	

1.4. Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE (24/7)	
Emergency telephone numbers	+39 800 177 870	
Other emergency telephone numbers	+61 3 9573 3188	

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H222+H229 - Aerosols Category 1, H351 - Carcinogenicity Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

2.2. Label elements

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Hazard pictogram(s)





Signal word

d Dange

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H351	Suspected of causing cancer.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions 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.
P280	Wear protective gloves and protective clothing.

Precautionary statement(s) Response

P308+P313 IF exposed or concerned: Get medical advice/ attention.

Precautionary statement(s) Storage

P405	Store locked up.	
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.	

Precautionary statement(s) Disposal

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

2.3. Other hazards

Inhalation may produce health damage*.

Cumulative effects may result following exposure*.

May produce discomfort of the respiratory system and skin*.

Repeated exposure potentially causes skin dryness and cracking*.

Vapours potentially cause drowsiness and dizziness*.

methylene chloride Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)		
butane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)	
propane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)	
iso-butane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)	

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

3.2.Mixtures					
1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1. 75-09-2 2.200-838-9 3.602-004-00-3 4.01- 2119480404-41-0007	30-50	methylene chloride *	Carcinogenicity Category 2; H351 [2]	Not Available	Not Available
1. 106-97-8. 2.203-448-7 3.601-004-00-0 601-004-01-8 4.01- 2119474691-32-XXXX	10-15	<u>butane</u>	Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1]	Not Available	Not Available
1. 74-98-6 2.200-827-9 3.601-003-00-5 4.01- 2119486944- 21-XXXX	15-25	propane	Flammable Gases Category 1, Gases Under Pressure; H220, H280 [2]	Not Available	Not Available

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IOELVs available; [e] Substance identified as having endocrine disrupting properties

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1. 75-28-5. 2.200-857-2 3.601-004-00-0 601-004-01-8 4.01- 2119485395- 27-XXXX	5-20	iso-butane	Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1]	Not Available	Not Available
Legend:	1. Classified	by Chemwatch; 2. C	lassification drawn from Regulation (EU) No 1272/2008 - Annex V	/I; 3. Classification	n drawn from C&L * EU

SECTION 4 First aid measures

4.1. Description of first aid measures

•	
Eye Contact	If aerosols come in contact with the eyes: 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	If solids or aerosol mists are deposited upon the skin: 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	If aerosols, fumes or combustion products are inhaled: 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. Avoid giving milk or oils. Avoid giving alcohol.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

for intoxication due to Freons/ Halons;

A: Emergency and Supportive Measures

- Maintain an open airway and assist ventilation if necessary
- Treat coma and arrhythmias if they occur. Avoid (adrenaline) epinephrine or other sympathomimetic amines that may precipitate ventricular arrhythmias. Tachyarrhythmias caused by increased myocardial sensitisation may be treated with propranolol, 1-2 mg IV or esmolol 25-100 microgm/kg/min IV.
- ▶ Monitor the ECG for 4-6 hours
- B: Specific drugs and antidotes:
 - There is no specific antidote
- C: Decontamination
 - Inhalation; remove victim from exposure, and give supplemental oxygen if available.
- Ingestion; (a) Prehospital: Administer activated charcoal, if available. DO NOT induce vomiting because of rapid absorption and the risk of abrupt onset CNS depression. (b) Hospital: Administer activated charcoal, although the efficacy of charcoal is unknown. Perform gastric lavage only if the ingestion was very large and recent (less than 30 minutes)

D: Enhanced elimination:

▶ There is no documented efficacy for diuresis, haemodialysis, haemoperfusion, or repeat-dose charcoal

POISONING and DRUG OVERDOSE, Californian Poison Control System Ed. Kent R Olson; 3rd Edition

- Do not administer sympathomimetic drugs unless absolutely necessary as material may increase myocardial irritability.
- No specific antidote.
- Because rapid absorption may occur through lungs if aspirated and cause systematic effects, the decision of whether to induce vomiting or not should be made by an attending physician.
- If lavage is performed, suggest endotracheal and/or esophageal control.
- Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.
- ▶ Treatment based on judgment of the physician in response to reactions of the patient

Treat symptomatically.

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

- Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- $\mbox{\ensuremath{\,^{\blacktriangleright}}}$ Monitor and treat, where necessary, for arrhythmias.

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- Figure 3 Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ► Treat seizures with diazepam.
- Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE. P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 Firefighting measures

5.1. Extinguishing media

SMALL FIRE:

▶ Water spray, dry chemical or CO2

LARGE FIRE:

Water spray or fog.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility

▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

GENERAL

- -----
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus
- 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 cylinders from path of fire.
- Equipment should be thoroughly decontaminated after use.

Fire Fighting

FIRE FIGHTING PROCEDURES:

- -----
- 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.

FIRE FIGHTING REQUIREMENTS:

- ▶ Positive pressure, self-contained breathing apparatus is required for fire-fighting of hazardous materials.
- Full structural fire-fighting (bunker) gear is the minimum acceptable attire.
- The need for proximity, entry and special protective clothing should be determined for each incident, by a competent fire-fighting safety professional.
- ▶ Containers may explode when heated Ruptured cylinders may rocket
- May burn but does not ignite easily.
- Fire exposed cylinders may vent contents through pressure relief devices thereby increasing vapour concentration..
- Fire may produce irritating, poisonous or corrosive gases.
- Runoff may create fire or explosion hazard.
- May decompose explosively when heated or involved in fire.
- Contact with gas may cause burns, severe injury and/ or frostbite
- ${f ilde{ t h}}$ POISONOUS: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN

Decomposition may produce toxic fumes of:

Fire/Explosion Hazard

carbon monoxide (CO)

carbon dioxide (CO2)

hydrogen chloride

phosgene

other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

WARNING: Aerosol containers may present pressure related hazards.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

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.

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- ▶ 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.
- ▶ Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus
- Prevent, by all means available, spillage from entering drains or water courses.
- Consider evacuation (or protect in place).
- 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.
- Contain or absorb spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.
- Clear area of all unprotected personnel and move upwind
- Alert Emergency Authority and advise them of the location and nature of hazard.
- Wear full body clothing with breathing apparatus.
- Prevent by any means available, spillage from entering drains and water-courses
- Consider evacuation.
- Major Spills
- Increase ventilation. No smoking or naked lights within area.
- Stop leak only if safe to so do.
- 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.
- Fit vent pipes. 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 courses
- 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.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Radon and its radioactive decay products are hazardous if inhaled or ingested

- 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.
- Safe handling
- 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.

Fire and explosion protection

See section 5

- Cylinders should be stored in a purpose-built compound with good ventilation, preferably in the open.
- Such compounds should be sited and built in accordance with statutory requirements.
- The storage compound should be kept clear and access restricted to authorised personnel only. Cylinders stored in the open should be protected against rust and extremes of weather
- Cylinders in storage should be properly secured to prevent toppling or rolling.

Cvlinder valves should be closed when not in use. Other information

- Where cylinders are fitted with valve protection this should be in place and properly secured.
 - Gas cylinders should be segregated according to the requirements of the Dangerous Goods Act.
 - Preferably store full and empty cylinders separately.
 - Check storage areas for hazardous concentrations of gases prior to entry
- Full cylinders should be arranged so that the oldest stock is used first.
- Cylinders in storage should be checked periodically for general condition and leakage. Protect cylinders against physical damage. Move and store cylinders correctly as instructed for their manual handling.

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NOTE: A 'G' size cylinder is usually too heavy for an inexperienced operator to raise or lower.

7.2. Conditions for safe storage, including any incompatibilities

▶ DO NOT use aluminium or galvanised containers Suitable container Aerosol dispenser Check that containers are clearly labelled. F is a combustible liquid under certain circumstances even though there is no measurable flash point and it is difficult to ignite its is flammable in ambient air in the range 12-23%; increased oxygen content can greatly enhance fire and explosion potential • contact with hot surfaces and elevated temperatures can form fumes of hydrogen chloride and phosgene reacts violently with active metals, aluminium, lithium, methanol,, peroxydisulfuryl difluoride, potassium, potassium tert-butoxide, sodium • forms explosive mixtures with nitric acid ▶ is incompatible with strong oxidisers, strong caustics, alkaline earths and alkali metals ▶ attacks some plastics, coatings and rubber ▶ may generate electrostatic charge due to low conductivity Butane / isobutane: reacts violently with strong oxidisers, acetylene, halogens, and nitrous oxides Storage incompatibility does not mix with chlorine dioxide, nitric acid and some plastics may generate electrostatic charges, due to low conductivity, which may ignite vapours. Store butane well away from nickel carbonyl in the presence of oxygen between 20-40°C reacts violently with strong oxidisers, barium peroxide, chlorine dioxide, dichlorine oxide, fluorine etc. ► Dissolves some plastics, rubbers, and coatings ▶ may accumulate static charges which may ignite its vapours ► Segregate from alcohol, water. Avoid reaction with oxidising agents Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances Hazard categories in accordance with Regulation P3b: Flammable Aerosols (EC) No 1272/2008 Qualifying quantity (tonnes) of dangerous substances as P3b Lower- / Upper-tier requirements: 5 000 (net) / 50 000 (net) referred to in Article 3(10) for

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

the application of

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
methylene chloride	Dermal 12 mg/kg bw/day (Systemic, Chronic) Inhalation 176 mg/m³ (Systemic, Chronic) Dermal 5.82 mg/kg bw/day (Systemic, Chronic) * Inhalation 44 mg/m³ (Systemic, Chronic) * Oral 0.06 mg/kg bw/day (Systemic, Chronic) *	0.31 mg/L (Water (Fresh)) 0.031 mg/L (Water - Intermittent release) 0.27 mg/L (Water (Marine)) 2.57 mg/kg sediment dw (Sediment (Fresh Water)) 0.26 mg/kg sediment dw (Sediment (Marine)) 0.33 mg/kg soil dw (Soil) 26 mg/L (STP)

^{*} Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	methylene chloride	Methylene chloride; Dichloromethane	100 ppm / 353 mg/m3	706 mg/m3 / 200 ppm	Not Available	skin
Italy Occupational Exposure Limits (Italian)	methylene chloride	Cloruro di metilene, Diclorometano	50 ppm / 175 mg/m3	353 mg/m3 / 100 ppm	Not Available	Cute

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
methylene chloride	Not Available	Not Available	Not Available
butane	Not Available	Not Available	Not Available
propane	Not Available	Not Available	Not Available
iso-butane	5500* ppm	17000** ppm	53000*** ppm

Ingredient	Original IDLH	Revised IDLH
methylene chloride	2,300 ppm	Not Available
butane	Not Available	1,600 ppm
propane	2,100 ppm	Not Available
iso-butane	Not Available	Not Available

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8.2. Exposure 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.

- F 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.

8.2.2. Individual protection measures, such as personal protective equipment

8.2.1. Appropriate engineering

controls











protective equipmen

- Safety glasses with side shields.
- ► Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]

Lontact 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

Eye and face protection

a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. Skin protection See Hand protection below

Hands/feet protection

- No special equipment needed when handling small quantities.OTHERWISE:
 - For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber gloves.
- For potentially heavy exposures:
- Wear chemical protective gloves, eg. PVC. and safety footwear.

Body protection

See Other protection below

Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type

- respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]
- 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.

Other protection

- Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. 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.

No special equipment needed when handling small quantities

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- ► Eyewash unit.
- Do not spray on hot surfaces.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

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Material	СРІ
PE/EVAL/PE	Α

Respiratory protection

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.

Required Minimum	Half-Face	Full-Face	Powered Air
Protection Factor	Respirator	Respirator	Respirator

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PVA	Α
TEFLON	В
BUTYL	С
CPE	С
NATURAL RUBBER	С
NEOPRENE	С
VITON	С
VITON/BUTYL	С
VITON/CHLOROBUTYL	С

^{*} CPI - Chemwatch Performance Index

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

up to 10 x ES	AX-AUS / Class 1	-	AX-PAPR-AUS / Class 1
up to 50 x ES	Air-line*	-	-
up to 100 x ES	-	AX-3	-
100+ x ES	-	Air-line**	-

^{* -} Continuous-flow; ** - Continuous-flow or positive pressure demand A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or $hydrogen\ cyanide(HCN),\ B3=Acid\ gas\ or\ hydrogen\ cyanide(HCN),\ E=Sulfur$ dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	AX-AUS / Class 1	-
up to 50	1000	-	AX-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	AX-2
up to 100	10000	-	AX-3
100+		-	Airline**

^{** -} Continuous-flow or positive pressure demand.

 $A(AII\ classes) = Organic\ vapours,\ B\ AUS\ or\ B1 = Acid\ gases,\ B2 = Acid\ gas\ or\ hydrogen$ cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 deg C)

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured		
Physical state	Dissolved Gas	Relative density (Water = 1)	1.20
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	20.5
Initial boiling point and boiling range (°C)	39-40	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	788.77
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

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TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Elevated temperatures. Presence of open flame. Product is considered stable. Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

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.

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. Inhalation of the vapour is hazardous and may even be fatal

The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

Inhalation of toxic gases may cause:

Inhaled

- ▶ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;
- respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;
- heart: collapse, irregular heartbeats and cardiac arrest;
- gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.

Inhalation hazard is increased at higher temperatures.

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 inco-ordination.

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

Inhalation exposure may cause susceptible individuals to show change in heart beat rhythm i.e. cardiac arrhythmia. Exposures must be terminated.

Acute intoxication by halogenated aliphatic hydrocarbons appears to take place over two stages. Signs of a reversible narcosis are evident in the first stage and in the second stage signs of injury to organs may become evident, a single organ alone is (almost) never involved.

Ingestion

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

Skin Contact

The material may accentuate any pre-existing dermatitis condition

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.

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

The material may cause severe inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

Eye

Not considered to be a risk because of the extreme volatility of the gas.

There is some evidence that 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

Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. There is sufficient evidence to suggest that this material directly causes cancer in humans.

Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

Main route of exposure to the gas in the workplace is by inhalation.

	1		
TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL	TOXICITY Not Available	IRRITATION Not Available	
ALKOOOL	TOXICITY	IRRITATION	
methylene chloride	dermal (rat) LD50: >2000 mg/kg ^[2] Inhalation(Rat) LC50: 76 mg/L4h ^[2]	Eye(rabbit): 162 mg - moderate Eye(rabbit): 500 mg/24hr - mild	
	Oral (Rat) LD50: 1600 mg/kg ^[2]	Skin (rabbit): 100mg/24hr-moderate Skin (rabbit): 810 mg/24hr-SEVERE	
butane	TOXICITY	IRRITATION	
	Inhalation(Rat) LC50: 658 mg/l4h ^[2]	Not Available	

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	TOXICITY	IRRITATION	
propane	Inhalation(Rat) LC50: 364726.819 ppm4h ^[2]	Not Available	
	TOXICITY	IRRITATION	
iso-butane	Inhalation(Rat) LC50: >13023 ppm4h ^[1]	Not Available	
Legend:	Nalue 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		

TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL	Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation.				
METHYLENE CHLORIDE	Inhalation (human) TCLo: 500 ppm/ 1 y - I Eye(rabbit): 10 mg - mild The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe 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. Repeated exposures may produce severe ulceration. WARNING: This substance has been classified by the IARC as Group 2A: Probably Carcinogenic to Humans.				
PROPANE	No significant acute toxicological data identified in literature search.				
TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL & METHYLENE CHLORIDE					
Acute Toxicity	×	Carcinogenicity	✓		
Skin Irritation/Corrosion	×	Reproductivity	×		
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×		
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×		

Legend:

Aspiration Hazard

🗶 – Data either not available or does not fill the criteria for classification

Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

Mutagenicity

No evidence of endocrine disrupting properties were found in the current literature.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

TENSORGRIP L27	Endpoint	Test Duration (hr)	Species	Value	Source
UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	2-5.4	7
	EC50	72h	Algae or other aquatic plants	202-286mg/l	4
methylene chloride	EC50	48h	Crustacea	108.5mg/l	1
	EC50	96h	Algae or other aquatic plants	0.98mg/l	4
	LC50	96h	Fish	2-3.3mg/l	4
	EC50(ECx)	96h	Algae or other aquatic plants	0.98mg/l	4
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
butane	LC50	96h	Fish	24.11mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
propane	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

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Test Duration (hr) Endpoint Value Source EC50 96h 7.71mg/l 2 Algae or other aquatic plants iso-butane 24.11mg/l LC50 96h 2 2 EC50(ECx) 96h Algae or other aquatic plants 7.71mg/l Extracted from 1, IUCLID Toxicity Data 2, Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4, US EPA, Leaend: Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan)

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

- Bioconcentration Data 8, Vendor Data

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.

For Methylene Chloride: Log Kow: 1.25; Log Koc: 1.68; Log Kom: 1.44; Henry's atm m3/mol: 2.68E-03; Henry s Law Constant: 0.002 atm/m3/mol; BCF: 5.

Atmospheric Fate: Methylene chloride is a volatile liquid that tends to evaporate to the atmosphere from water and soil. The main degradation pathway for methylene chloride in air is via reactions with hydroxyl radicals the average atmospheric lifetime is estimated to be 130 days. Because this degradation pathway is relatively slow, methylene chloride may become widely dispersed but, is not likely to accumulate in the atmosphere. The small amount of methylene chloride which reaches the stratosphere, (about 1%), may undergo direct breakdown by sunlight; however, this is not expected to occur in the troposphere. Reactions of methylene chloride with ozone or other common atmospheric species, (e.g., oxygen atoms, chlorine atoms, and nitrate radicals), are not believed to contribute to its breakdown.

Terrestrial Fate: The substance will evaporate rapidly from moist soil and does not sorb strongly to soil or sediment. Methylene chloride is likely to be highly mobile in soil and is expected to leach to groundwater. Biological breakdown is dependent on soil type, substrate concentration, and if the chemical gains or loses electrons, (redox reactions). The substance has been reported to be degraded in both oxygenated and low oxygen soils and degradation appears to accelerate in the presence of elevated levels of organic carbon. Methylene chloride has a low tendency to absorb to soil; therefore, there is a potential for leaching to groundwater. The substance is expected to evaporate from dry/moist soil. Aquatic Fate: Methylene chloride will evaporate rapidly from water, however; evaporation rates vary with rate of mixing, wind speed, temperature, and other factors. The substance slowly breaks down in neutral pH water, with an experimental half-life of 18 months @ 25 C. This reaction rate varies greatly with changes in temperature and pH it has been estimated that the same reaction in actidic solutions would take 700 years. Oxygenated and non-oxygenated biological breakdown may be important fate processes for methylene chloride in water. Methylene chloride has been observed to undergo degradation at a rapid rate in the presence of oxygen.

Ecotoxicity: Only a few valid acute toxicity data, and no results from long-term studies in marine species, are available for this substance. Available data in marine species do not indicate a marked difference in the sensitivity of marine and freshwater species to this substance. Methylene chloride is moderately toxic to the common mummichog, daggerblade grass shrimp, and fathead minnow. The substance has low toxicity to Daphnia magna water fleas. Methylene chloride is not expected to accumulate/concentrate in aquatic organisms.

For Butane (Synonym: n-Butane): Log Kow: 2.89; Koc: 450-900; Henry s Law Constant: 0.95 atm-cu m/mole, Vapor Pressure: 1820 mm Hg; BCF: 1.9.

Atmospheric Fate: Butane is expected to exist only as a gas in the ambient atmosphere. Gas-phase n-butane is degraded in the atmosphere by reaction with hydroxyl radicals; the half-life for this reaction in air is estimated to be 6.3 days, (@ 25 C). Butane is not expected to absorb UV light and probably will probably not be broken down directly by sunlight in the atmosphere. Nighttime reactions with radical species and nitrogen oxides may contribute to the atmospheric transformation of butane.

Terrestrial Fate: Butane is expected to have low mobility in soil. Evaporation from dry soil surfaces is expected to be the main fate process. This substance is expected to be biologically degraded in soil.

Aquatic Fate: Butane may adsorb to suspended solids and sediment and is expected to occur from water surfaces with an estimated half-life for a model river of 2.2 hours and 3 days, from a model lake. Biological breakdown in water is expected to occur with complete breakdown estimated to be 34 days to 2-butanone and 2-butanol, (observed in studies). Breakdown by water and by sunlight in water are not expected to be important fate processes.

Ecotoxicity: The substance is expected to moderately accumulate in aquatic organisms. Butane is moderately toxic to fish, and Daphnia water fleas.

For Isobutene (Refrigerant Gas): Koc: 35, (estimated); Henry s Law Constant: 4.08 atm-cu m/mole; Vapor Pressure: 2611 mm Hg @ 25 deg C; BCF: 74, (estimated). Atmospheric Fate: Isobutane is a gas at ordinary temperatures. The substance is highly flammable and explosive. It is degraded in the atmosphere by reactions with hydroxyl radicals; the half-life for this reaction in air is 6.9 days. The loss of these substances via wet/dry deposition is thought to be of minor importance. It is thought that the substance will evaporate upon leaving the atmosphere in precipitation then reemitted to the atmosphere after deposition to the land. Isobutane is a contributor to the production of PAN, (peroxyacyl nitrates), under photochemical smog conditions.

Terrestrial Fate: Isobutane will have very high mobility in soil and low adsorption potential. Evaporation from dry/moist soil surfaces is an important fate process for this substance. Isobutane is biodegradable, especially under acclimated conditions, and may biodegrade in soil. The substance is not expected to contaminate the soil.

Aquatic Fate: Isobutane is not expected to not adsorb to sediment/particulate matter in the water column. Isobutane will readily evaporate from water with an estimated half-life of 2.2 hours, for a model river and 3.0 days. If the gas is introduced to water, it will float and boil, producing a flammable, and visible, vapor cloud. Isobutane will not concentrate in aquatic organisms and will be broken down by microorganisms in water, however; the substance will not contaminate the water.

Ecotoxicity: Isobutane has slight acute toxicity to aquatic life. Short-term effects include death of animals, fish, and birds and low growth rate in plants. Long term, (chronic), effects include shortened life-spans, reproductive problems, lowered fertility, and appearance/behavioral changes in animals.

For Propane: Koc 460. log

Kow 2.36.

Henry's Law constant of 7.07x10-1 atm-cu m/mole, derived from its vapour pressure, 7150 mm Hg, and water solubility, 62.4 mg/L. Estimated BCF: 13.1.

Terrestrial Fate: Propane is expected to have moderate mobility in soil. Volatilization from moist soil surfaces is expected to be an important fate process. Volatilization from dry soil surfaces is based vapor pressure. Biodegradation may be an important fate process in soil and sediment.

Aquatic Fate: Propane is expected to adsorb to suspended solids and sediment. Volatilization from water surfaces is expected and half-lives for a model river and model lake are estimated to be 41 minutes and 2.6 days, respectively. Biodegradation may not be an important fate process in water. Ecotoxicity: The potential for bioconcentration in aquatic organisms is low.

Atmospheric Fate: Propane is expected to exist solely as a gas in the ambient atmosphere. Gas-phase propane is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 14 days and is not expected to be susceptible to direct photolysis by sunlight.

DO NOT discharge into sewer or waterways

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methylene chloride	LOW (Half-life = 56 days)	HIGH (Half-life = 191 days)
butane	LOW	LOW
propane	LOW	LOW
iso-butane	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
methylene chloride	LOW (BCF = 40)
butane	LOW (LogKOW = 2.89)
propane	LOW (LogKOW = 2.36)
iso-butane	LOW (BCF = 1.97)

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12.4. Mobility in soil

Ingredient	Mobility
methylene chloride	LOW (KOC = 23.74)
butane	LOW (KOC = 43.79)
propane	LOW (KOC = 23.74)
iso-butane	LOW (KOC = 35.04)

12.5. Results of PBT and vPvB assessment

	P	В	Т	
Relevant available data	Not Available	Not Available	Not Available	
PBT	×	×	×	
vPvB	X	×	×	
PBT Criteria fulfilled?				
vPvB			No	

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal

- ▶ 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 State Land Waste Management 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.

Not Available Waste treatment options Sewage disposal options Not Available

SECTION 14 Transport information

Labels Required



Marine Pollutant

Land transport (ADR-RID)

Land tran	isport (ADK-KID)					
	I number or ID mber	1950	1950			
14.2. UN nar	l proper shipping me	AEROSOLS (conta	AEROSOLS (contains propane)			
	ansport hazard	Class	2.1			
cla	iss(es)	Subsidiary risk	Not Applicab	le		
14.4. Pad	cking group	Not Applicable				
14.5. En v	vironmental hazard	Not Applicable				
		Hazard identifica	tion (Kemler)	Not Applicable		
		Classification cod	de	5F		
14.6. Sp e	ecial precautions for	Hazard Label		2.1		
use	user	Special provision	S	190 327 344 625		
		Limited quantity		1 L		
		Tunnel Restrictio	n Code	2 (D)		

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14.1. UN number	1950	1950			
14.2. UN proper shipping name	Aerosols, flammable (co	Aerosols, flammable (contains propane)			
	ICAO/IATA Class 2.1				
14.3. Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable			
01033(03)	ERG Code 10L				
14.4. Packing group	Not Applicable				
14.5. Environmental hazard	Not Applicable	Not Applicable			
	Special provisions		A145 A167 A802		
	Cargo Only Packing Instructions		203		
	Cargo Only Maximum Qty / Pack		150 kg		
14.6. Special precautions for user	Passenger and Cargo Packing Instructions		203		
usei	Passenger and Cargo Maximum Qty / Pack		75 kg		
	Passenger and Cargo Limited Quantity Packing Instructions		Y203		
	Passenger and Cargo	Limited Maximum Qty / Pack	30 kg G		

Sea transport (IMDG-Code / GGVSee)

ou nanoport (miss ouder ou				
14.1. UN number	1950			
14.2. UN proper shipping name	AEROSOLS (contains propane)			
14.3. Transport hazard	IMDG Class 2.1			
class(es)	IMDG Subrisk Not Applicable			
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
	EMS Number F-D, S-U			
14.6. Special precautions for user	Special provisions 63 190 277 327 344 381 959			
4001	Limited Quantities 1000 ml			

Inland waterways transport (ADN)

14.1. UN number	1950				
14.2. UN proper shipping name	AEROSOLS (contains p	AEROSOLS (contains propane)			
14.3. Transport hazard class(es)	2.1 Not Applicable	2.1 Not Applicable			
14.4. Packing group	Not Applicable	Not Applicable			
14.5. Environmental hazard	Not Applicable				
	Classification code Special provisions	5F 190; 327; 344; 625			
14.6. Special precautions for user	Limited quantity	1L			
usui	Equipment required	PP, EX, A			
	Fire cones number	1			

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
methylene chloride	Not Available
butane	Not Available
propane	Not Available
iso-butane	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

•	
Product name	Ship Type
methylene chloride	Not Available
butane	Not Available
propane	Not Available

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TENSORGRIP L27 UNIVERSAL SPRAY CONTACT ADHESIVE, CLEAR, AEROSOL

Ship Type Product name Not Available iso-butane

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

methylene chloride is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

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International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2A: Probably carcinogenic to humans

Italy Occupational Exposure Limits - Carcinogens

Italy Occupational Exposure Limits (Italian)

butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 1) Carcinogens: Category 1 A

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 4) Germ cell mutagens: Category 1 B

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

propane is found on the following regulatory lists

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

iso-butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 1) Carcinogens: Category 1 A

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 4) Germ cell mutagens: Category 1 B

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, -2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category P3b

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
methylene chloride	75-09-2	602-004-00-3	<pre>01- 2119480404-41-0007</pre>

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Carc. 2	GHS08; Wng	H351
2	STOT SE 3; STOT SE 3; STOT SE 1; Expl. 1.1; Flam. Gas 1; Aerosol 1; Flam. Liq. 1; Flam. Sol. 1; Org. Perox. A; Pyr. Liq. 1; Self-heat. 1; Water-react. 1; Ox. Gas 1; Ox. Liq. 1; Comp.; Met. Corr. 1; Acute Tox. 1; Asp. Tox. 1; Acute Tox. 1; Skin Corr. 1A; Skin Sens. 1; Eye Dam. 1; Acute Tox. 1; Resp. Sens. 1; Muta. 1A; Repr. 1A; Lact.; STOT RE 1; Aquatic Acute 2; Aquatic Chronic 2	GHS08; Dgr; GHS01; GHS09	H351; H319; H336; H302; H341; H335; H314; H370; H202; H372; H401; H411; H360

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
butane	106-97-8.	601-004-00-0 601-004-01-8	01-2119474691-32-XXXX
Harmonisation (C&I		Pic	etograms Signal Word

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Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Liq.; Muta. 1B; Carc. 1A; STOT SE 3	GHS02; GHS04; Dgr; GHS08	H220; H280; H340; H350; H304; H315; H335; H336; H361; H373; H411; H223; H229; H371

 $Harmonisation \ \ Code\ 1 = The\ most\ prevalent\ classification.\ Harmonisation\ \ Code\ 2 = The\ most\ severe\ classification.$

Ingredient	CAS number	Index No	ECHA Dossier
propane	74-98-6	601-003-00-5	01-2119486944-21-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Liq.; Skin Irrit. 2; Eye Irrit. 2; Acute Tox. 4; STOT SE 3; Muta. 1B; Carc. 1A; Flam. Liq. 2; Asp. Tox. 1; STOT SE 3; Repr. 2; STOT RE 2; Aquatic Chronic 2	GHS02; GHS04; Dgr; GHS03; GHS08; GHS09	H220; H280; H223; H229; H315; H319; H332; H335; H340; H350; H225; H304; H336; H361; H373; H411

 $Harmonisation \ Code \ 1 = The \ most \ prevalent \ classification. \ Harmonisation \ Code \ 2 = The \ most \ severe \ classification.$

Ingredient	CAS number	Index No	ECHA Dossier
iso-butane	75-28-5.	601-004-00-0 601-004-01-8	01- 2119485395- 27-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Liq.; Muta. 1B; Carc. 1A; STOT SE 3; STOT SE 1	GHS02; GHS04; Dgr; GHS08	H220; H280; H340; H350; H336; H223; H229; H370

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (methylene chloride; butane; propane; iso-butane)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	18/07/2023
Initial Date	01/04/2022

Full text Risk and Hazard codes

Explosive, severe projection hazard.
Extremely flammable gas.
Flammable aerosol.
Highly flammable liquid and vapour.
Pressurised container: May burst if heated.
Contains gas under pressure; may explode if heated.
Harmful if swallowed.
May be fatal if swallowed and enters airways.
Causes severe skin burns and eye damage.

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H315	Causes skin irritation.		
H319	Causes serious eye irritation.		
H332	Harmful if inhaled.		
H335	May cause respiratory irritation.		
H336	May cause drowsiness or dizziness.		
H340	May cause genetic defects.		
H341	Suspected of causing genetic defects.		
H350	May cause cancer.		
H360	May damage fertility or the unborn child.		
H361	Suspected of damaging fertility or the unborn child.		
H370	Causes damage to organs.		
H371	May cause damage to organs.		
H372	Causes damage to organs through prolonged or repeated exposure.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H401	Toxic to aquatic life.		
H411	Toxic to aquatic life with long lasting effects.		

SDS Version Summary

Version	Date of Update	Sections Updated	
3.5	18/07/2023	Toxicological information - Acute Health (inhaled), Toxicological information - Chronic Health, Hazards identification - Classification, Composition / information on ingredients - Ingredients	

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Definitions and abbreviations

PC - TWA: Permissible Concentration-Time Weighted Average

PC - STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit,

IDLH: Immediately Dangerous to Life or Health Concentrations

ES: Exposure Standard

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value BCF: BioConcentration Factors

BEI: Biological Exposure Index

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List

NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Aerosols Category 1,	On basis of test data

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Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
H222+H229	
Carcinogenicity Category 2, H351	Calculation method

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