



TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

QUIN GLOBAL (UK) LTD

Chemwatch Hazard Alert Code: 4

Version No: 2.2

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: 04/07/2022

Print Date: 30/08/2022

S.REACH.GB.EN

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

1.1. Product Identifier

| | |
|-------------------------------|--|
| Product name | TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL |
| Chemical Name | Not Applicable |
| Synonyms | Not Available |
| Proper shipping name | AEROSOLS (contains propane) |
| Chemical formula | Not Applicable |
| Other means of identification | UFI:HKTV-10AH-H00G-DF15 |

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

| | | |
|------------------------------|---|--|
| 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 |
| Sector of Use - Sub Category | SU0 | Other |
| | SU19 | Building and construction work |
| | SU6a | Manufacture of wood and wood products |
| Relevant identified uses | Application is by spray atomisation from a hand held aerosol pack | |
| Uses advised against | Not Applicable | |

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

| | |
|-------------------------|--|
| Registered company name | QUIN GLOBAL (UK) LTD |
| Address | PO BOX 7634 PERTH PH2 1GA United Kingdom |
| Telephone | 01738 501 510 |
| Fax | Not Available |
| Website | www.quinglobal.com |
| Email | technicalhelp.uk@quinglobal.com |

1.4. Emergency telephone number

| | |
|-----------------------------------|------------------------------|
| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE |
| Emergency telephone numbers | +44 20 3901 3542 |
| Other emergency telephone numbers | +44 808 164 9592 |

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

| | |
|---|---|
| Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1] | H315 - Skin Corrosion/Irritation Category 2, H351 - Carcinogenicity Category 2, H222+H229 - Aerosols Category 1 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 |

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2.2. Label elements

| | |
|---------------------|---|
| Hazard pictogram(s) |  |
| Signal word | Danger |

Hazard statement(s)

| | |
|-----------|--|
| H315 | Causes skin irritation. |
| H351 | Suspected of causing cancer. |
| H222+H229 | Extremely flammable aerosol. Pressurized container: may burst if heated. |

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. |
| P264 | Wash all exposed external body areas thoroughly after handling. |

Precautionary statement(s) Response

| | |
|-----------|--|
| P308+P313 | IF exposed or concerned: Get medical advice/ attention. |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

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 and/or skin contact may produce health damage*.

Cumulative effects may result following exposure*.

May produce discomfort of the eyes and respiratory tract*.

May affect fertility*.

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) |

Not Applicable

SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.2

3.2. Mixtures

| 1.CAS No 2.EC No 3.Index No 4.REACH No | %[weight] | Name | Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 | SCL / M-Factor | Nanoform Particle Characteristics |
|---|-----------|-----------------------------|---|----------------|-----------------------------------|
| 1.75-09-2 2.200-838-9 | 30-50 | <u>methylene chloride</u> * | Carcinogenicity Category 2; H351 [2] | Not Available | Not Available |

Continued...

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| 1.CAS No 2.EC No 3.Index No 4.REACH No | [%weight] | Name | Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 | SCL / M-Factor | Nanoform Particle Characteristics |
|---|-----------|-------------------|---|----------------|-----------------------------------|
| 3.602-004-00-3 4.01- 2119480404-41-XXXX | | | | | |
| 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 | 15-30 | <u>propane</u> | Flammable Gases Category 1, Gases Under Pressure; H220, H280 [2] | Not Available | Not Available |
| 1.75-28-5. 2.200-857-2 3.601-004-00-0 601-004-01-8 4.01- 2119485395- 27-XXXX | 1-10 | <u>iso-butane</u> | Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1] | Not Available | Not Available |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties

SECTION 4 First aid measures

4.1. Description of first aid measures

| | |
|---------------------|---|
| Eye Contact | <p>If aerosols come in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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 | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> ▶ 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 | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> ▶ 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 | <p>Not considered a normal route of entry.</p> <ul style="list-style-type: none"> ▶ 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.

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- ▶ 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.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ 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

| | |
|------------------------------|--|
| Fire Fighting | <p>-----</p> <p>GENERAL</p> <p>-----</p> <ul style="list-style-type: none"> ▶ 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. <p>-----</p> <p>FIRE FIGHTING PROCEDURES:</p> <p>-----</p> <ul style="list-style-type: none"> ▶ 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. <p>-----</p> <p>FIRE FIGHTING REQUIREMENTS:</p> <p>-----</p> <ul style="list-style-type: none"> ▶ 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. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▶ 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. ▶ POISONOUS: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN <p>Decomposition may produce toxic fumes of:</p> <ul style="list-style-type: none"> , carbon monoxide (CO) , carbon dioxide (CO2) , hydrogen chloride , phosgene , other pyrolysis products typical of burning organic material. <p>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p> <p>WARNING: Aerosol containers may present pressure related hazards.</p> |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Continued...

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See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

| | |
|---------------------|---|
| Minor Spills | <ul style="list-style-type: none"> ▶ 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 | <ul style="list-style-type: none"> ▶ 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. ▶ Increase ventilation. ▶ No smoking or naked lights within area. ▶ 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. ▶ 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

| | |
|--------------------------------------|--|
| Safe handling | <p>Radon and its radioactive decay products are hazardous if inhaled or ingested</p> <ul style="list-style-type: none"> ▶ 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. |
| Fire and explosion protection | See section 5 |

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| | |
|--------------------------|--|
| Other information | <ul style="list-style-type: none"> ▶ 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. ▶ Cylinder valves should be closed when not in use. ▶ 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. <p>NOTE: A 'G' size cylinder is usually too heavy for an inexperienced operator to raise or lower.</p> |
|--------------------------|--|

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | <ul style="list-style-type: none"> ▶ DO NOT use aluminium or galvanised containers ▶ Aerosol dispenser. ▶ Check that containers are clearly labelled. |
| Storage incompatibility | <p>Methylene chloride</p> <ul style="list-style-type: none"> ▶ 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, peroxydisulphuryl 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 <p>Butane/ isobutane</p> <ul style="list-style-type: none"> ▶ reacts violently with strong oxidisers ▶ reacts with acetylene, halogens and nitrous oxides ▶ is incompatible with chlorine dioxide, conc. nitric acid and some plastics ▶ may generate electrostatic charges, due to low conductivity, in flow or when agitated - these may ignite the vapour. <p>Segregate from nickel carbonyl in the presence of oxygen, heat (20-40 C)</p> <p>Propane:</p> <ul style="list-style-type: none"> ▶ reacts violently with strong oxidisers, barium peroxide, chlorine dioxide, dichlorine oxide, fluorine etc. ▶ liquid attacks some plastics, rubber 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 |

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

| Ingredient | DNELs Exposure Pattern Worker | PNECs Compartment |
|--------------------|---|---|
| methylene chloride | Dermal 12 mg/kg bw/day (Systemic, Chronic) Inhalation 176 mg/m ³ (Systemic, Chronic) Dermal 5.82 mg/kg bw/day (Systemic, Chronic) * Inhalation 44 mg/m ³ (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/m ³ | 706 mg/m ³ / 200 ppm | Not Available | skin |

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 |

Continued...

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| Ingredient | Original IDLH | Revised IDLH |
|------------|---------------|---------------|
| propane | 2,100 ppm | Not Available |
| iso-butane | Not Available | Not Available |

8.2. Exposure controls

| | |
|--|--|
| 8.2.1. Appropriate engineering controls | <p>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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> ▶ 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. Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ 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] |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ 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 |
| Other protection | <ul style="list-style-type: none"> ▶ 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. ▶ 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. <p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> ▶ 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-**

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.

Continued...

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

generated selection:

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| Material | CPI |
|-------------------|-----|
| PE/EVAL/PE | A |
| PVA | A |
| TEFLON | B |
| BUTYL | C |
| CPE | C |
| NATURAL RUBBER | C |
| NEOPRENE | C |
| VITON | C |
| VITON/BUTYL | C |
| VITON/CHLOROBUTYL | C |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

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.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| 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(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 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 (Not Available%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |
| Nanoform Solubility | Not Available | Nanoform Particle Characteristics | Not Available |
| Particle Size | Not Available | | |

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

| | |
|---|--|
| 10.1.Reactivity | See section 7.2 |
| 10.2. Chemical stability | <ul style="list-style-type: none"> ▶ 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 toxicological effects

| | |
|---------------------|--|
| Inhaled | <p>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.</p> <p>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.</p> <p>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</p> <p>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.</p> <p>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> ▶ 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. <p>Inhalation hazard is increased at higher temperatures.</p> <p>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.</p> <p>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.</p> <p>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</p> <p>Inhalation exposure may cause susceptible individuals to show change in heart beat rhythm i.e. cardiac arrhythmia. Exposures must be terminated.</p> <p>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.</p> |
| Ingestion | <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.</p> <p>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.</p> |
| Skin Contact | <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>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.</p> |
| Eye | <p>Not considered to be a risk because of the extreme volatility of the gas.</p> <p>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.</p> |
| Chronic | <p>Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure.</p> <p>There is sufficient evidence to suggest that this material directly causes cancer in humans.</p> <p>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p> <p>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.</p> <p>Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> |

| | | |
|---|--|---------------------------------|
| TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| methylene chloride | TOXICITY | IRRITATION |
| | dermal (rat) LD50: >2000 mg/kg ^[2] | Eye(rabbit): 162 mg - moderate |
| | Inhalation(Rat) LC50; 76 mg/L4h ^[2] | Eye(rabbit): 500 mg/24hr - mild |

Continued...

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| | | |
|-------------------|---|------------------------------------|
| | 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 |
| propane | TOXICITY | IRRITATION |
| | Inhalation(Rat) LC50; >13023 ppm4h ^[1] | Not Available |
| iso-butane | TOXICITY | IRRITATION |
| | Inhalation(Rat) LC50; >13023 ppm4h ^[1] | Not Available |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | |

| | |
|--|---|
| TENSORGRIP L40 GP CONTACT SPRAY 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 L40 GP CONTACT SPRAY 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 | ✗ |
| Mutagenicity | ✗ | Aspiration Hazard | ✗ |

Legend: ✗ – 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 Disruption Properties

Not Available

SECTION 12 Ecological information

12.1. Toxicity

| TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL | Endpoint | Test Duration (hr) | Species | Value | Source |
|--|-----------|--------------------|-------------------------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |
| methylene chloride | Endpoint | Test Duration (hr) | Species | Value | Source |
| | BCF | 1008h | Fish | 2-5.4 | 7 |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 0.98mg/l | 4 |
| | EC50 | 72h | Algae or other aquatic plants | 202-286mg/l | 4 |
| | EC50 | 48h | Crustacea | 150-218mg/l | 4 |
| | LC50 | 96h | Fish | 2-3.3mg/l | 4 |
| butane | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | LC50 | 96h | Fish | 24.11mg/l | 2 |
| propane | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | LC50 | 96h | Fish | 24.11mg/l | 2 |

Continued...

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| | | | | | |
|-------------------|---|---------------------------|-------------------------------|--------------|---------------|
| | EC50 | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| iso-butane | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | LC50 | 96h | Fish | 24.11mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| Legend: | <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i> | | | | |

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

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 adsorb 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 acidic 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 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) |

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| Ingredient | Bioaccumulation |
|------------|---------------------|
| propane | LOW (LogKOW = 2.36) |
| iso-butane | LOW (BCF = 1.97) |

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 | B | T |
|-------------------------|---------------|---------------|---------------|
| Relevant available data | Not Available | Not Available | Not Available |
| PBT | ✘ | ✘ | ✘ |
| vPvB | ✘ | ✘ | ✘ |
| PBT Criteria fulfilled? | No | | |
| vPvB | No | | |

12.6. Endocrine Disruption Properties

Not Available

12.7. Other adverse effects

Not Available

SECTION 13 Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------------------|---|
| Product / Packaging disposal | <ul style="list-style-type: none"> ▶ 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. |
| Waste treatment options | Not Available |
| Sewage disposal options | Not Available |

SECTION 14 Transport information

Labels Required

| | |
|-------------------------|----------------|
| Marine Pollutant | NO |
| HAZCHEM | Not Applicable |

Land transport (ADR-RID)

| | | | | | | | | | |
|---|---|--------------------------------|----------------|---------------------|----------------|--------------|-----|--------------------|-----------------|
| 14.1. UN number | 1950 | | | | | | | | |
| 14.2. UN proper shipping name | AEROSOLS (contains propane) | | | | | | | | |
| 14.3. Transport hazard class(es) | <table border="1" style="width: 100%;"> <tr> <td>Class</td> <td>2.1</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table> | Class | 2.1 | Subrisk | Not Applicable | | | | |
| Class | 2.1 | | | | | | | | |
| Subrisk | Not Applicable | | | | | | | | |
| 14.4. Packing group | Not Applicable | | | | | | | | |
| 14.5. Environmental hazard | Not Applicable | | | | | | | | |
| 14.6. Special precautions for user | <table border="1" style="width: 100%;"> <tr> <td>Hazard identification (Kemler)</td> <td>Not Applicable</td> </tr> <tr> <td>Classification code</td> <td>5F</td> </tr> <tr> <td>Hazard Label</td> <td>2.1</td> </tr> <tr> <td>Special provisions</td> <td>190 327 344 625</td> </tr> </table> | Hazard identification (Kemler) | Not Applicable | Classification code | 5F | Hazard Label | 2.1 | Special provisions | 190 327 344 625 |
| Hazard identification (Kemler) | Not Applicable | | | | | | | | |
| Classification code | 5F | | | | | | | | |
| Hazard Label | 2.1 | | | | | | | | |
| Special provisions | 190 327 344 625 | | | | | | | | |

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| | |
|-------------------------|-------|
| Limited quantity | 1 L |
| Tunnel Restriction Code | 2 (D) |

Air transport (ICAO-IATA / DGR)

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

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

Inland waterways transport (ADN)

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

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

Not Applicable

14.8. 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 |

14.9. Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|--------------|-----------|
|--------------|-----------|

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| Product name | Ship Type |
|--------------------|---------------|
| methylene chloride | Not Available |
| butane | Not Available |
| propane | Not Available |
| iso-butane | Not Available |

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 of Substances

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

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

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.

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 | 01-2119480404-41-XXXX |

| 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; Carc. 2; 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&L Inventory) | Hazard Class and Category Code(s) | Pictograms Signal Word Code(s) | Hazard Statement Code(s) |
|-------------------------------|-----------------------------------|--------------------------------|--------------------------|
|-------------------------------|-----------------------------------|--------------------------------|--------------------------|

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

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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 | GHS04; Dgr; GHS08; GHS01 | 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 - AIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDLS | 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 | 04/07/2022 |
| Initial Date | 01/04/2022 |

Full text Risk and Hazard codes

| | |
|-------------|---|
| H202 | Explosive, severe projection hazard. |
| H220 | Extremely flammable gas. |
| H223 | Flammable aerosol. |
| H225 | Highly flammable liquid and vapour. |
| H229 | Pressurised container: May burst if heated. |
| H280 | Contains gas under pressure; may explode if heated. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |

TENSORGRIP L40 GP CONTACT SPRAY ADHESIVE, CLEAR, AEROSOL

| | |
|-------------|--|
| 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 |
|---------|----------------|--|
| 1.2 | 04/07/2022 | Classification, Ingredients, Physical Properties |

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

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