# TENSORGRIP L10 (CANISTER)



## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME**
TENSORGRIP L10 (CANISTER)

**PROPER SHIPPING NAME**
LIQUEFIED GAS, FLAMMABLE, N.O.S.(contains iso-butane and propane)

**PRODUCT USE**
Industrial contact adhesive.

**SUPPLIER**
Company: Quin Global Pty Ltd
Address:
30 Faunce Street
Queanbeyan
NSW, 2620
Australia
Telephone: +61 2 6175 0574
Emergency Tel: 1800 039 008 (24hrs)
Fax: +61 2 6299 3868

## Section 2 - HAZARDS IDENTIFICATION

**STATEMENT OF HAZARDOUS NATURE**
**HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.**

**RISK**

| Risk Codes | Risk Phrases |
|---|---|
| R12 | • Extremely flammable. |
| R22 | • Harmful if swallowed. |
| R38 | • Irritating to skin. |
| R40(3) | • Limited evidence of a carcinogenic effect. |
| R44 | • Risk of explosion if heated under confinement. |

**SAFETY**

| Safety Codes | Safety Phrases |
|---|---|
| S16 | • Keep away from sources of ignition. No smoking. |
| S23 | • Do not breathe gas/fumes/vapour/spray. |
| S24 | • Avoid contact with skin. |
| S36 | • Wear suitable protective clothing. |
| S37 | • Wear suitable gloves. |
| S401 | • To clean the floor and all objects contaminated by this material, use water and detergent. |
| S13 | • Keep away from food, drink and animal feeding stuffs. |
| S46 | • If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label). |
| S60 | • This material and its container must be disposed of as hazardous waste. |

**continued...**

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|---|---|---|
| methylene chloride | 75-09-2 | 40-50 |
| ingredients non- hazardous | | Not Spec |
| iso- butane | 75-28-5. | 5-10 |
| propane | 74-98-6 | 5-10 |

## Section 4 - FIRST AID MEASURES

**SWALLOWED**
■ Not considered a normal route of entry.
• For advice, contact a Poisons Information Centre or a doctor at once.
• Urgent hospital treatment is likely to be needed.
• If swallowed do NOT induce vomiting.
• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
• Avoid giving milk or oils.
• Avoid giving alcohol.

**EYE**
■ If this product comes in contact with the eyes:
• Wash out immediately with fresh running water.
• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
• Seek medical attention without delay; if pain persists or recurs seek medical attention.
• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**SKIN**
■ If skin contact occurs:
• Immediately remove all contaminated clothing, including footwear.
• Flush skin and hair with running water (and soap if available).
• Seek medical attention in event of irritation.

**INHALED**
• If fumes or combustion products are inhaled remove from contaminated area.
• 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.
• Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

**NOTES TO PHYSICIAN**
■ DO NOT administer sympathomimetic drugs as they may cause ventricular arrhythmias.
For acute or short term repeated exposures to methylene chloride:
• Methylene chloride is well absorbed by the lung. An 8 hour exposure to 250 ppm causes carboxyhaemoglobin levels to exceed 8%. Physical exertion and smoke produce an additive effect.
• The lungs exhale most of the absorbed dose unchanged. Between 1/4 and 1/3 is metabolised to carbon monoxide / dioxide. 5 hours of 100% oxygen is required, typically, to reduce the carboxyhaemoglobin level from 13% to 7.5%.
• As with inhalation and ingestion of the hydrocarbons support of respiration and monitoring for dysrhythmias are the first steps toward stabilisation.
• Small ingestions require only dilution with water or milk. Patients who have ingested more than several swallows may benefit from Ipecac Syrup/lavage, charcoal or cathartics. No data is available to support the efficacy of these treatments.

## Section 5 - FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA**
■ DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED SAFELY:
OTHERWISE: LEAVE GAS TO BURN.
FOR SMALL FIRE:
• Dry chemical, CO2 or water spray to extinguish gas (only if absolutely necessary and safe to do so).
• DO NOT use water jets.
FOR LARGE FIRE:
• Cool cylinder by direct flooding quantities of water onto upper surface until well after fire is out.
• DO NOT direct water at source of leak or venting safety devices as icing may occur.

**continued...**

**FIRE FIGHTING**

■ ----------
GENERAL
----------
• Alert Fire Brigade and tell them location and nature of hazard.
• May be violently or explosively reactive.
• Wear breathing apparatus plus protective gloves.
• Consider evacuation.

**FIRE/EXPLOSION HAZARD**
• HIGHLY FLAMMABLE: will be easily ignited by heat, sparks or flames.
• Will form explosive mixtures with air
• Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
• Vapours may travel to source of ignition and flash back.
Combustion products include: carbon dioxide (CO2), hydrogen chloride, phosgene, other pyrolysis products typical of burning organic material.

**FIRE INCOMPATIBILITY**
• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

**HAZCHEM**
2YE

## Section 6 - ACCIDENTAL RELEASE MEASURES

**MINOR SPILLS**
• Avoid breathing vapour and any contact with liquid or gas. Protective equipment including respirator should be used.
• DO NOT enter confined spaces where gas may have accumulated.
• Shut off all sources of possible ignition and increase ventilation.
• Clear area of personnel.

**MAJOR SPILLS**
• Clear area of all unprotected personnel and move upwind.
• Alert Emergency Authority and advise them of the location and nature of hazard.
• May be violently or explosively reactive.
• Wear full body clothing with breathing apparatus.

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

## Section 7 - HANDLING AND STORAGE

**PROCEDURE FOR HANDLING**
• Consider use in closed pressurised systems, fitted with temperature, pressure and safety relief valves which are vented for safe dispersal.
• The tubing network design connecting gas cylinders to the delivery system should include appropriate pressure indicators and vacuum or suction lines.
• Fully-welded types of pressure gauges, where the bourdon tube sensing element is welded to the gauge body, are recommended.
• Before connecting gas cylinders, ensure manifold is mechanically secure and does not containing another gas. Before disconnecting gas cylinder, isolate supply line segment proximal to cylinder, remove trapped gas in supply line with aid of vacuum pump.

**SUITABLE CONTAINER**
Canister.

**STORAGE INCOMPATIBILITY**
■ Methylene chloride
• 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.
• Segregate from alcohol, water.
• Avoid reaction with oxidising agents.

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**STORAGE REQUIREMENTS**
• Store in original containers in approved flame-proof area.
• No smoking, naked lights, heat or ignition sources.
• DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
• Keep containers securely sealed.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE CONTROLS**

| Source | Material | TWA ppm | TWA mg/m³ |
|---|---|---|---|
| Australia Exposure Standards | Tensorgrip L10 (Canister) (Methylene chloride) | 50 | 174 |
| Australia Exposure Standards | Tensorgrip L10 (Canister) (Butane) | 800 | 1900 |

**MATERIAL DATA**
TENSORGRIP L10 (CANISTER):
■ None assigned. Refer to individual constituents.

ISO-BUTANE:
■ For butane:
Odour Threshold Value: 2591 ppm (recognition)
Butane in common with other homologues in the straight chain saturated aliphatic hydrocarbon series is not characterised by its toxicity but by its narcosis-inducing effects at high concentrations. The TLV is based on analogy with pentane by comparing their lower explosive limits in air.
Odour Safety Factor(OSF)
OSF=0.22 (n-BUTANE).
May act as a simple asphyxiants; these are gases which, when present in high concentrations, reduce the oxygen content in air below that required to support breathing, consciousness and life; loss of consciousness, with death by suffocation may rapidly occur in an oxygen deficient atmosphere.
CARE: Most simple asphyxiants are odourless or possess low odour and there is no warning on entry into an oxygen deficient atmosphere.
Isobutane Odour Threshold Value: 1.2 ppm

PROPANE:
■ For propane
Odour Safety Factor(OSF)
OSF=0.16 (PROPANE).

**PERSONAL PROTECTION**

**RESPIRATOR**
•Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

**EYE**
• Safety glasses with side shields; or as required,
• 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 lens 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].

**HANDS/FEET**
■ Wear protective gloves, e.g. PVC.

**OTHER**
• Protective overalls, closely fitted at neck and wrist.
• Eye-wash unit.
IN CONFINED SPACES:
• Non-sparking protective boots
• Static-free clothing.

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**ENGINEERING CONTROLS**

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE**

Clear or red highly flammable liquid with strong solvent odour; does not mix with water.

**PHYSICAL PROPERTIES**

Liquid.
Gas.
Does not mix with water.
Floats on water.

| | | | |
|---|---|---|---|
| State | Liquid | Molecular Weight | Not Applicable |
| Melting Range (℃) | Not Available | Viscosity | Not Available |
| Boiling Range (℃) | - 42 | Solubility in water (g/L) | Immiscible |
| Flash Point (℃) | - 104 | pH (1% solution) | Not Applicable |
| Decomposition Temp (℃) | Not Available | pH (as supplied) | Not A pplicable |
| Autoignition Temp (℃) | Not Available | Vapour Pressure (kPa) | Not Available |
| Upper Explosive Limit (%) | 18 | Specific Gravity (water=1) | 0.86- 0.90 |
| Lower Explosive Limit (%) | 1.8 | Relative Vapour Density (air=1) | >1 |
| Volatile Component (%vol) | >65 | Evaporation Rate | Not Available |

## Section 10 - STABILITY AND REACTIVITY

**CONDITIONS CONTRIBUTING TO INSTABILITY**

• Elevated temperatures.
• Presence of open flame.
• Product is considered stable.
• Hazardous polymerisation will not occur.
*For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

**POTENTIAL HEALTH EFFECTS**

**ACUTE HEALTH EFFECTS**

**SWALLOWED**

■ 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.
Ingestion may result in nausea, abdominal irritation, pain and vomiting.
Not normally a hazard due to physical form of product.

**EYE**

■ There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

**SKIN**

■ This material can cause inflammation of the skin oncontact in some persons.
Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
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.

**continued...**

**INHALED**
■ Inhalation exposure may cause susceptible individuals to show change in heart beat rhythm i.e. cardiac arrhythmia.
Depression of the central nervous system is the most outstanding effect of most halogenated aliphatic hydrocarbons. Inebriation and excitation, passing into narcosis, is a typical reaction.
WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.

**CHRONIC HEALTH EFFECTS**
■ There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.
Dichloromethane is stored in body fat and metabolised to carbon monoxide, which reduces the oxygen carrying capacity of blood.
Dichloromethane exposures cause liver and kidney damage in animals and this justifies consideration before exposing persons with a history of impaired liver function and/or renal disorders.

**TOXICITY AND IRRITATION**
■ Not available. Refer to individual constituents.

**CARCINOGEN**

| | | | | |
|---|---|---|---|---|
| methylene chloride | International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs | Group | 2B | Possibly carcinogenic to humans |
| methylene chloride | Australia Exposure Standards | Carcinogen Category | 3 | |
| methylene chloride | Australia Exposure Standards - Carcinogens | Carcinogen Category | 3 | |

**SKIN**

| | | | |
|---|---|---|---|
| methylene chloride | Australia Exposure Standards - Skin | Notes | Sk |
| methylene chloride | GESAMP/EHS Composite List - GESAMP Hazard Profiles | D1: skin irritation/corrosion | 2 |

## Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

**Ecotoxicity**

| Ingredient | Persistence: Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|---|---|---|---|---|
| methylene chloride | LOW | HIGH | LOW | HIGH |
| iso- butane | HIGH | No Data Available | LOW | HIGH |
| propane | LOW | No Data Available | LOW | HIGH |

## Section 13 - DISPOSAL CONSIDERATIONS

• Recycle wherever possible or consult manufacturer for recycling options.
• Consult State Land Waste Management Authority for disposal.
• Bury residue in an authorised landfill.
• Recycle containers if possible, or dispose of in an authorised landfill.

## Section 14 - TRANSPORTATION INFORMATION


Labels Required: FLAMMABLE GAS

**HAZCHEM:**
2YE (ADG7)

**continued...**

**ADG7:**

| | | | |
|---|---|---|---|
| Class or Division: | 2.1 | Subsidiary Risk: | None |
| UN No.: | 3161 | Packing Group: | None |
| Special Provision: | 274 | Limited Quantity: | 0 |
| Portable Tanks & Bulk Containers - Instruction: | T50 | Portable Tanks & Bulk Containers - Special Provision: | None |
| Packagings & IBCs - Packing Instruction: | P200 | Packagings & IBCs - Special Packing Provision: | None |

Name and Description: LIQUEFIED GAS, FLAMMABLE, N.O.S. (contains iso-butane and propane)

**Land Transport UNDG:**

| | | | |
|---|---|---|---|
| Class or division: | 2.1 | Subsidiary risk: | None |
| UN No.: | 3161 | UN packing group: | None |

Shipping Name:LIQUEFIED GAS, FLAMMABLE, N.O.S. (contains iso-butane and propane)

**Air Transport IATA:**

| | | | |
|---|---|---|---|
| ICAO/IATA Class: | 2.1 | ICAO/IATA Subrisk: | None |
| UN/ID Number: | 3161 | Packing Group: | - |
| Special provisions: Cargo Only | A1 | | |
| Packing Instructions: Passenger and Cargo | 200 | Maximum Qty/Pack: Passenger and Cargo | 150 kg |
| Packing Instructions: Passenger and Cargo Limited Quantity | Forbidden | Maximum Qty/Pack: Passenger and Cargo Limited Quantity | Forbidden |
| Packing Instructions: | Forbidden | Maximum Qty/Pack: | Forbidden |

Shipping name:LIQUEFIED GAS, FLAMMABLE, N.O.S.(contains iso-butane and propane)

**Maritime Transport IMDG:**

| | | | |
|---|---|---|---|
| IMDG Class: | 2.1 | IMDG Subrisk: | None |
| UN Number: | 3161 | Packing Group: | None |
| EMS Number: | F- D, S- U | Special provisions: | 274 |
| Limited Quantities: | 0 | | |

Shipping name:LIQUEFIED GAS, FLAMMABLE, N.O.S.(contains iso-butane and propane)

## Section 15 - REGULATORY INFORMATION

**Indications of Danger:**

| | |
|---|---|
| F+ | Extremely flammable |
| Xn | Harmful |

POISONS SCHEDULE None

**REGULATIONS**

**Regulations for ingredients**

**methylene chloride (CAS: 75-09-2) is found on the following regulatory lists;**
"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (AQUA/1 to 6 - non-pesticide anthropogenic organics)","Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)","Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)","Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)","Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality","Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)","Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (IRRIG)","Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)","Australia Drinking Water Guideline Values For Physical and Chemical Characteristics","Australia Exposure Standards","Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia National Pollutant Inventory","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","FisherTransport Information","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","International Council of Chemical Associations (ICCA) - High Production Volume List","OECD List of High Production Volume (HPV)

**continued...**

Chemicals","OSPAR National List of Candidates for Substitution – Norway","Sigma-AldrichTransport Information","United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments","WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established","WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

**iso-butane (CAS: 75-28-5) is found on the following regulatory lists;**
"Australia Exposure Standards","Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)","Australia National Pollutant Inventory","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List","International Numbering System for Food Additives","OECD List of High Production Volume (HPV) Chemicals","Sigma-AldrichTransport Information"

**propane (CAS: 74-98-6) is found on the following regulatory lists;**
"Australia Exposure Standards","Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)","Australia National Pollutant Inventory","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","International Council of Chemical Associations (ICCA) - High Production Volume List","International Fragrance Association (IFRA) Survey: Transparency List","International Numbering System for Food Additives","OECD List of High Production Volume (HPV) Chemicals","Sigma-AldrichTransport Information"

**No data for Tensorgrip L10 (Canister) (CW: 4795-43)**

## Section 16 - 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.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)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.



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*This is the end of the MSDS.*