



TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER

QUIN GLOBAL (UK) LTD

Chemwatch Hazard Alert Code: 4

Version No: 3.2

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

Issue Date: 29/11/2023

Print Date: 22/03/2024

S.REACH.GB.EN

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

1.1. Product Identifier

Product name	TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER
Synonyms	TENSORGRIP
Proper shipping name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains methylal)
Other means of identification	UFI:3K5T-J0T8-600N-XG0A

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 SU3 Industrial uses
Relevant identified uses	Adhesives
Uses advised against	No specific uses advised against are identified.

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

Registered company name	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 (24/7)
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]	H222+H229 - Aerosols Category 1
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2.2. Label elements

Hazard pictogram(s)	
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TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER

Signal word **Danger**

Hazard statement(s)

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

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.

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

Not Applicable

Material does not contain any CLP Article 18 substances.

2.3. Other hazards

Inhalation may produce health damage*.

Cumulative effects may result following exposure*.

May produce discomfort of the respiratory system*.

Repeated exposure potentially causes skin dryness and cracking*.

Vapours potentially cause drowsiness and dizziness*.

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

SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.2

3.2. Mixtures

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. 109-87-5 2. 203-714-2 3. Not Available 4. Not Available	40-60	<u>methylal</u>	Flammable Liquids Category 2; H225, EUH019 [3]	Not Available	Not Available
1. 115-10-6 2. 204-065-8 3. 603-019-00-8 4. Not Available	20-30	<u>dimethyl ether</u> • -	Flammable Gases Category 1, Gases Under Pressure; H220, H280 [2]	Not Available	Not Available
1. 106-97-8. 2. 203-448-7 3. 601-004-00-0 601-004-01-8 4. Not Available	5-10	<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. Not Available	5-10	<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. Not Available	1-5	<u>iso-butane</u>	Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1]	Not Available	Not Available

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with eyes: <ul style="list-style-type: none"> ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available).

Continued...

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	<ul style="list-style-type: none"> ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none"> ▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

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

Consult a Dr or Poison Centre for further guidance.

SECTION 5 Firefighting measures

5.1. Extinguishing media

- ▶ Water spray or fog.
- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

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
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5.3. Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Consider evacuation (or protect in place). ▶ 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 the fire and cool adjacent area. ▶ Avoid spraying water onto liquid pools. ▶ Do not approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	<p>carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.</p> <p>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p> <p>WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides.</p> <p>BEWARE: Empty solvent, paint, lacquer and flammable liquid drums present a severe explosion hazard if cut by flame torch or welded. Even when thoroughly cleaned or reconditioned the drum seams may retain sufficient solvent to generate an explosive atmosphere in the drum.</p>

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb small quantities with vermiculite or other absorbent material. ▶ Wipe up. ▶ Collect residues in a flammable waste container.
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. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ 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 spill with sand, earth or vermiculite. ▶ Use only spark-free shovels and explosion proof equipment. ▶ Collect recoverable product into labelled containers for recycling. ▶ Absorb remaining product with sand, earth or vermiculite. ▶ Collect solid residues and seal in labelled drums for disposal. ▶ Wash area and prevent runoff into drains. ▶ If contamination of drains or waterways occurs, advise emergency services.

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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	<ul style="list-style-type: none"> ▶ Store above 10 degrees Celsius. ▶ Avoid storage in direct sunlight. ▶ Unopened containers received from the supplier should be safe to store for 18 months. ▶ Opened containers should not be stored for more than 12 months.
Fire and explosion protection	See section 5
Other information	

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Packing as supplied by manufacturer. ▶ Check that containers are clearly labelled and free from leaks.
Storage incompatibility	<p>Methylal</p> <ul style="list-style-type: none"> ▶ forms unstable peroxides on storage ▶ reacts violently with strong oxidisers ▶ is incompatible with acids ▶ attacks some plastics, rubber and coatings ▶ may generate electrostatic charges due to low conductivity <p>Dimethyl ether:</p> <ul style="list-style-type: none"> ▶ is a peroxidisable gas ▶ may be heat and shock sensitive ▶ is able to form unstable peroxides on prolonged exposure to air ▶ reacts violently with oxidisers, aluminium hydride, lithium aluminium hydride ▶ is incompatible with strong acids, metal salts <p>Butane / isobutane:</p> <ul style="list-style-type: none"> ▶ reacts violently with strong oxidisers, acetylene, halogens, and nitrous oxides ▶ does not mix with chlorine dioxide, nitric acid and some plastics ▶ may generate electrostatic charges, due to low conductivity, which may ignite vapours. <p>Store butane well away from nickel carbonyl in the presence of oxygen between 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. ▶ Dissolves some plastics, rubbers, and coatings ▶ may accumulate static charges which may ignite its vapours
Hazard categories in accordance with Regulation (EC) No 2012/18/EU (Seveso III)	P3b: Flammable Aerosols
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	P3b Lower- / Upper-tier requirements: 5 000 (net) / 50 000 (net)

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
methylal	Dermal 17.9 mg/kg bw/day (Systemic, Chronic) Inhalation 126.6 mg/m ³ (Systemic, Chronic) <i>Dermal 18.1 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 31.5 mg/m³ (Systemic, Chronic) *</i> <i>Oral 18.1 mg/kg bw/day (Systemic, Chronic) *</i>	14.577 mg/L (Water (Fresh)) 1.477 mg/L (Water (Marine)) 13.135 mg/kg sediment dw (Sediment (Fresh Water)) 1.313 mg/kg sediment dw (Sediment (Marine)) 4.654 mg/kg soil dw (Soil) 10 g/L (STP)
dimethyl ether	Inhalation 1 894 mg/m ³ (Systemic, Chronic) <i>Inhalation 471 mg/m³ (Systemic, Chronic) *</i>	0.155 mg/L (Water (Fresh)) 1.549 mg/L (Water - Intermittent release) 0.016 mg/L (Water (Marine)) 0.681 mg/kg sediment dw (Sediment (Fresh Water)) 0.069 mg/kg sediment dw (Sediment (Marine)) 0.045 mg/kg soil dw (Soil) 160 mg/L (STP)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	methylal	Dimethoxymethane	1000 ppm / 3160 mg/m ³	3950 mg/m ³ / 1250 ppm	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	dimethyl ether	Dimethyl ether	400 ppm / 766 mg/m ³	958 mg/m ³ / 500 ppm	Not Available	Not Available

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Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	butane	Butane	600 ppm / 1450 mg/m3	1810 mg/m3 / 750 ppm	Not Available	Carc. (only applies if Butane contains more than 0.1% of buta-1,3-diene)

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
methylal	230 ppm	2500* ppm	15000** ppm
dimethyl ether	3,000 ppm	3800* ppm	7200* ppm
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
methylal	2,200 ppm	Not Available
dimethyl ether	Not Available	Not Available
butane	Not Available	1,600 ppm
propane	2,100 ppm	Not Available
iso-butane	Not Available	Not Available

8.2. Exposure controls

<p>8.2.1. Appropriate engineering controls</p>	<p>For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.</p> <p>Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Type of Contaminant:</th> <th>Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s (50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s (100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s (200-500 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Lower end of the range</th> <th>Upper end of the range</th> </tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </tbody> </table>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)	Lower end of the range	Upper end of the range	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	3: Intermittent, low production.	3: High production, heavy use	4: Large hood or large air mass in motion	4: Small hood-local control only
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<p>8.2.2. Individual protection measures, such as personal protective equipment</p>																			
<p>Eye and face protection</p>	<ul style="list-style-type: none"> ▶ Safety glasses ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. 																		
<p>Skin protection</p>	See Hand protection below																		
<p>Hands/feet protection</p>	<ul style="list-style-type: none"> ▶ Wear general protective gloves, eg. light weight rubber gloves. 																		
<p>Body protection</p>	See Other protection below																		
<p>Other protection</p>	<ul style="list-style-type: none"> ▶ Overalls. ▶ Eyewash unit. ▶ Ensure there is ready access to a safety shower. ▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. ▶ Non sparking safety or conductive footwear should be considered. 																		

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: **'Forsberg Clothing Performance Index'**.

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

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Material	CPI
BUTYL	A

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

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NEOPRENE	A
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* 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.

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)	0.89
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	7	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	67
Initial boiling point and boiling range (°C)	42.3	Molecular weight (g/mol)	Not Available
Flash point (°C)	-19	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	24.7	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	2.2	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	736.56
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

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"> ▶ Unstable in the presence of incompatible materials. ▶ 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	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an
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	occupational setting. 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. 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.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.
Acute Toxicity	×
Skin Irritation/Corrosion	×
Serious Eye Damage/Irritation	×
Respiratory or Skin sensitisation	×
Mutagenicity	×
	Carcinogenicity
	Reproductivity
	STOT - Single Exposure
	STOT - Repeated Exposure
	Aspiration Hazard

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
methylal	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	874.12mg/l	2
	EC50	48h	Crustacea	>1200mg/l	2
	EC50	72h	Algae or other aquatic plants	9120mg/l	2
	NOEC(ECx)	720h	Algae or other aquatic plants	145.77mg/l	2
	LC50	96h	Fish	>1000mg/l	2
dimethyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	154.917mg/l	2
	EC50	48h	Crustacea	>4400mg/L	2
	NOEC(ECx)	48h	Crustacea	>4000mg/l	1
	LC50	96h	Fish	1783.04mg/l	2
butane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	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
	Not Available	Not Available	Not Available	Not Available	Not Available
iso-butane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2

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LC50	96h	Fish	24.11mg/l	2
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12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methylal	LOW	LOW
dimethyl ether	LOW	LOW
butane	LOW	LOW
propane	LOW	LOW
iso-butane	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
methylal	LOW (LogKOW = 0)
dimethyl ether	LOW (LogKOW = 0.1)
butane	LOW (LogKOW = 2.89)
propane	LOW (LogKOW = 2.36)
iso-butane	LOW (BCF = 1.97)

12.4. Mobility in soil

Ingredient	Mobility
methylal	HIGH (Log KOC = 1)
dimethyl ether	HIGH (Log KOC = 1.292)
butane	LOW (Log KOC = 43.79)
propane	LOW (Log KOC = 23.74)
iso-butane	LOW (Log 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 disrupting properties

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

12.7. Other adverse effects

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

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	<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. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

	
Marine Pollutant	NO
HAZCHEM	2YE

Land transport (ADR-RID)

Continued...

TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER

14.1. UN number or ID number	3501	
14.2. UN proper shipping name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains methylal)	
14.3. Transport hazard class(es)	Class	2.1
	Subsidiary Hazard	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard identification (Kemler)	23
	Classification code	8F
	Hazard Label	2.1
	Special provisions	274 659
	Limited quantity	0
	Tunnel Restriction Code	B/D

Air transport (ICAO-IATA / DGR)

14.1. UN number	3501	
14.2. UN proper shipping name	Chemical under pressure, flammable, n.o.s. * (contains methylal)	
14.3. Transport hazard class(es)	ICAO/IATA Class	2.1
	ICAO / IATA Subsidiary Hazard	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	A1 A187
	Cargo Only Packing Instructions	218
	Cargo Only Maximum Qty / Pack	75 kg
	Passenger and Cargo Packing Instructions	Forbidden
	Passenger and Cargo Maximum Qty / Pack	Forbidden
	Passenger and Cargo Limited Quantity Packing Instructions	Forbidden
	Passenger and Cargo Limited Maximum Qty / Pack	Forbidden

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	3501	
14.2. UN proper shipping name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains methylal)	
14.3. Transport hazard class(es)	IMDG Class	2.1
	IMDG Subsidiary Hazard	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	274 362
	Limited Quantities	0

Inland waterways transport (ADN)

14.1. UN number	3501	
14.2. UN proper shipping name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains methylal)	
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	8F
	Special provisions	274; 659
	Limited quantity	0
	Equipment required	PP, EX, A
	Fire cones number	1

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

Not Applicable

Continued...

TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER

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

Product name	Group
methylal	Not Available
dimethyl ether	Not Available
butane	Not Available
propane	Not Available
iso-butane	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
methylal	Not Available
dimethyl ether	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

methylal is found on the following regulatory lists

UK Workplace Exposure Limits (WELs).

dimethyl ether is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)

UK Workplace Exposure Limits (WELs).

butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB mandatory classification and labelling list (GB MCL)

UK Workplace Exposure Limits (WELs).

propane is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)

iso-butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB mandatory classification and labelling list (GB MCL)

Additional Regulatory Information

Not Applicable

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

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

Seveso Category	P3b

15.2. Chemical safety assessment

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

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (methylal; dimethyl ether; 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

SECTION 16 Other information

Revision Date	29/11/2023

Continued...

TENSORGRIP L56 LOW HAZARD HIGH TEMP LAMINATING ADHESIVE, CANISTER

Initial Date	17/10/2023
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Full text Risk and Hazard codes

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.

SDS Version Summary

Version	Date of Update	Sections Updated
1.2	26/10/2023	Firefighting measures - Fire Fighter (fire/explosion hazard), Composition / information on ingredients - Ingredients

Other information

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

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

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

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Definitions and abbreviations

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration

- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Aerosols Category 1, H222+H229	Expert judgement

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