SAFETY DATA SHEET
TENSORGRIP L19 SPRAY ADHESIVE AEROSOL

According to Regulation (EC) No 1907/2006, Annex II, as amended.Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name TENSORGRIP L19 SPRAY ADHESIVE AEROSOL

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

Identified uses Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier
QUIN GLOBAL (UK) LTD
PO BOX 7634
PERTH
PH2 1GA
+44 (0)845 381 2233
technical.uk@quinglobal.com

1.4. Emergency telephone number

Emergency telephone +44 (0)845 381 2233 (Mon - Fri) 09:00 - 16:00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

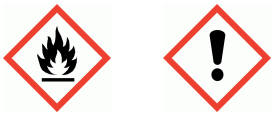
Health hazards Skin Irrit. 2 - H315 STOT SE 3 - H336

Environmental hazards Aquatic Chronic 3 - H412

Classification (67/548/EEC or 1999/45/EC) F+; R12. Xi; R38. N; R51/53

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Additional information For professional users only.

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Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, Acetone

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Dimethyl ether **30-60%**

CAS number: 115-10-6	EC number: 204-065-8	REACH registration number: 01-2119472128-37-XXXX

Classification
Flam. Gas 1 - H220
Press. Gas, Liquefied - H280

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics **10-30%**

CAS number: —	EC number: 921-024-6	REACH registration number: 01-2119475514-35-XXXX

Classification
Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

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Acetone		**5-10%**
CAS number: 67-64-1	EC number: 200-662-2	REACH registration number: 01-2119471330-49-XXXX

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2 - H319
STOT SE 3 - H336

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion Rinse mouth thoroughly with water. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Skin contact Remove contamination with soap and water or recognised skin cleansing agent. Continue to rinse for at least 15 minutes. If adhesive bonding occurs, do not force skin apart.

Eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention. If adhesive bonding occurs, do not force eyelids apart.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

4.2. Most important symptoms and effects, both acute and delayed

General information See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. During application and drying, solvent vapours will be emitted. Vapours in high concentrations are narcotic.

Ingestion May cause stomach pain or vomiting. May cause drowsiness or dizziness.

Skin contact Redness. Irritating to skin. Bonds skin and eyes in seconds.

Eye contact Irritating to eyes. Bonds skin and eyes in seconds.

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

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Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Vapours may form explosive mixtures with air.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Approach the spillage from upwind. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush away spillage with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

For professional users only. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store at temperatures between 10°C and 25°C. Store away from incompatible materials (see Section 10). Store in accordance with national regulations. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed and in a well-ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class

Flammable compressed gas storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Dimethyl ether

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Long-term exposure limit (8-hour TWA): WEL 400 ppm 766 mg/m³
Short-term exposure limit (15-minute): WEL 500 ppm 958 mg/m³

Acetone

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³
Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³
WEL = Workplace Exposure Limit

Dimethyl ether (CAS: 115-10-6)

DNEL	Workers - Inhalation; Long term systemic effects: 1894 mg/m³ General population - Inhalation; Long term systemic effects: 471 mg/m³
PNEC	- Fresh water; 0.155 mg/l - Marine water; 0.016 mg/l - Intermittent release; 1.549 mg/l - STP; 160 mg/l - Sediment (Freshwater); 0.681 mg/kg - Sediment (Marinewater); 0.069 mg/kg - Soil; 0.045 mg/kg

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

DNEL	Workers - Inhalation; Long term systemic effects: 2035 mg/m³ Workers - Dermal; Long term systemic effects: 773 mg/kg/day General population - Inhalation; Long term systemic effects: 608 mg/kg/day General population - Dermal; Long term systemic effects: 699 mg/kg/day General population - Oral; Long term systemic effects: 699 mg/kg/day

Acetone (CAS: 67-64-1)

DNEL	Workers - Inhalation; Long term systemic effects: 1210 mg/m³ Workers - Inhalation; Short term local effects: 2420 mg/m³ Workers - Dermal; Long term systemic effects: 186 mg/kg/day General population - Inhalation; Long term systemic effects: 200 mg/m³ General population - Dermal; Long term systemic effects: 62 mg/kg/day General population - Oral; Long term systemic effects: 62 mg/kg/day
PNEC	- Fresh water; 10.6 mg/l - Marine water; 1.06 mg/l - Intermittent release; 21 mg/l - STP; 100 mg/l - Sediment (Freshwater); 30.4 mg/kg - Sediment (Marinewater); 3.04 mg/kg - Soil; 29.5 mg/kg

Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) (CAS: 6683-19-8)

DNEL	Workers - Inhalation; Long term systemic effects: 9.5 mg/m³ Workers - Dermal; Long term systemic effects: 27 mg/kg/day General population - Inhalation; Long term systemic effects: 2.3 mg/m³ General population - Dermal; Long term systemic effects: 13.5 mg/kg/day General population - Oral; Long term systemic effects: 1.4 mg/kg/day

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PNEC

- Fresh water; 0.04 mg/l
- Marine water; 0.004 mg/l
- Intermittent release; 0.86 mg/l
- STP; 1 mg/l
- Sediment (Freshwater); 4000000 mg/kg
- Sediment (Marinewater); 400000 mg/kg
- Soil; 798000 mg/kg

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure the ventilation system is regularly maintained and tested. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

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Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Not available.
Odour	Characteristic.
Odour threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	~ -51°C CC (Closed cup).
Evaporation rate	No specific test data are available.
Evaporation factor	Not available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.0% Upper flammable/explosive limit: 13%
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.78 @ 20°C
Bulk density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 320 g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable at normal ambient temperatures and when used as recommended.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions The following materials may react strongly with the product: Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid exposing aerosol containers to high temperatures or direct sunlight. Containers can burst violently or explode when heated, due to excessive pressure build-up.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No data recorded.

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

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Aspiration hazard

Aspiration hazard	Based on available data the classification criteria are not met.

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. During application and drying, solvent vapours will be emitted. Vapours in high concentrations are narcotic.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	Redness. Irritating to skin. Bonds skin and eyes in seconds.
Eye contact	Irritating to eyes. Bonds skin and eyes in seconds.

Toxicological information on ingredients.

Dimethyl ether

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} gases ppmV)	164,000.0
Species	Rat
ATE inhalation (gases ppm)	164,000.0

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Genome mutation: Negative.

Carcinogenicity

Carcinogenicity	NOAEL 2.5 %, Inhalation, Rat

Reproductive toxicity

Reproductive toxicity - development	Developmental toxicity: - NOAEL: 40000 ppm, Inhalation, Rat

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 2.5 %, Inhalation, Rat

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,840.0
Species	Rat
ATE oral (mg/kg)	5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,800.0

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Species	Rat
ATE dermal (mg/kg)	2,800.0

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} : >25.2 mg/l, Inhalation, Vapour, Rat 4 hours

Skin corrosion/irritation

Animal data	Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Primary dermal irritation index: 0.67 Oedema score: No oedema (0). Irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.2 ml, 7 days, Rabbit Not irritating.

Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Read-across data.

Reproductive toxicity

Reproductive toxicity - fertility	Two-generation study - NOAEL 31680 mg/m³, Inhalation, Rat P
Reproductive toxicity - development	Developmental toxicity: - NOAEC: > 7000 ppm, Inhalation, Rabbit Read-across data.

Specific target organ toxicity - single exposure

STOT - single exposure	STOT SE 3 - H336 May cause drowsiness or dizziness.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEC 14000 mg/m³, Inhalation, Rat

Aspiration hazard

Aspiration hazard	Aspiration hazard if swallowed.

Acetone

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 5800 mg/kg, Oral, Rat REACH dossier information.

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >15800 mg/kg, Dermal, Rabbit REACH dossier information.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} ~132 mg/l, Inhalation, Rat REACH dossier information.

Skin corrosion/irritation

Animal data	Dose: 10 µl, 3 days, Guinea pig Erythema/eschar score: No erythema (0). Oedema score: No oedema (0).

Serious eye damage/irritation

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Serious eye damage/irritation	Causes serious eye irritation.

Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity	NOEL 79 mg, Inhalation, Mouse

Reproductive toxicity

Reproductive toxicity - development	Maternal toxicity: - NOAEC: 2200 ppm, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure	STOT SE 3 - H336 May cause drowsiness or dizziness.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 50000 ppm, Oral, Rat

SECTION 12: Ecological Information

Ecotoxicity	Harmful to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity	Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.
Acute toxicity - fish	LC_{50}, 96 hours: >1-10 mg/l, Algae
Acute toxicity - microorganisms	LC_{50}, 96 hours: >1-10 mg/l, Algae

Ecological information on ingredients.

Dimethyl ether

Acute toxicity - fish	LC_{50}, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: > 4400 mg/l, Daphnia magna NOEC, 48 hours: ≥ 4400 mg/l, Daphnia magna

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Toxicity	Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.
Acute toxicity - fish	LL_{50}, 72 hours: 10 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL50, 48 hours: 3 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL50, 72 hours: 10-30 mg/l, Pseudokirchneriella subcapitata

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Chronic toxicity - fish early life stage	NOELR, 28 days: 2.045 mg/l, Onchorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.17 mg/l, Daphnia magna LOEC, 21 days: 0.32 mg/l, Daphnia magna EC_{50}, 21 days: 0.23 mg/l, Daphnia magna

Acetone

Acute toxicity - fish	LC_{50}, 96 hours: 5540 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	LC_{50}, 48 hours: 8800 mg/l, Daphnia pulex
Acute toxicity - microorganisms	EC_{50}, 30 minutes: 61150 mg/l, Activated sludge
Chronic toxicity - aquatic invertebrates	NOEC, 28 days: 2212 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

Dimethyl ether

Biodegradation	Water - Degradation (5%): 28 days No biodegradation observed under test conditions.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Biodegradation	Water - Degradation (83%): 16 days Water - Degradation (98%): 28 days The substance is readily biodegradable.

Acetone

Phototransformation	Air - DT_{50} : ~ 10 days
Biodegradation	Water - Degradation (100%): 4 days The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

Dimethyl ether

Partition coefficient	log Pow: 0.07

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Bioaccumulative potential	No data available on bioaccumulation.

Acetone

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Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: -0.24

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients.

Dimethyl ether

Mobility The product is soluble in water.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Mobility The product has poor water-solubility.

Surface tension 20.9 mN/m @ 25°C

Acetone

Mobility The product is soluble in water.

Henry's law constant 3 Pa m³/mol @ 25°C

Surface tension 23 mN/m @ 20 - 25°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

Dimethyl ether

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Acetone

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels

14.4. Packing group

ADR/RID packing group	None
IMDG packing group	None
ADN packing group	None

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ICAO packing group None

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS F-D, S-U

ADR transport category 2

Tunnel restriction code (D)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations EH40/2005 Workplace exposure limits.
The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended).

Guidance Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 07/08/2017

Revision 3

Supersedes date 05/01/2017

SDS number 21555

Risk phrases in full R11 Highly flammable.
R12 Extremely flammable.
R36 Irritating to eyes.
R38 Irritating to skin.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

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Hazard statements in full

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: may burst if heated
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.