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UK - TENSORGRIP L20 SPRAY CONTACT ADHESIVE

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	UK - TENSORGRIP L20 SPRAY CONTACT ADHESIVE	
1.2. Relevant identified uses o	f the substance or mixture and uses advised against	
Identified uses	Adhesive.	
Uses advised against	Use only for intended applications.	
1.3. Details of the supplier of the supplier of the supplier of the supplier of the supplication of the su	he safety data sheet	
Supplier	QUIN GLOBAL (UK) LTD PO BOX 7634 PERTH PH2 1GA Quin - 01738 501 510 technicalhelp.uk@quinglobal.com	
Manufacturer	QUIN GLOBAL (UK) LTD PO BOX 7634 PERTH PH2 1GA Quin - 01738 501 510 technicalhelp.uk@quinglobal.com	
1.4. Emergency telephone nur	nber	
Emergency telephone	QUIN - +44 (0) 1738 501 510 (24 hrs)	
National emergency telephone number	UK Tel: 999 - For Emergency services - Ambulance, Police and Fire services Tel: 111 - When you need medical advice or treatment but it is not an emergency.	
SECTION 2: Hazards identification	ation	
2.1. Classification of the subst	ance or mixture	
Classification (EC 1272/2008)		
Physical hazards	Aerosol 1 - H222, H229	
Health hazards	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336	
Environmental hazards	Aquatic Chronic 2 - H411	
2.2. Label elements		
Hazard pictograms	¥2	
Signal word	Danger	

Hazard statements	 H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Additional information	For professional users only.
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. P271 Use only outdoors or in a well-ventilated area. 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	METHYL ACETATE, n-heptane
Supplementary precautionary statements	 P261 Avoid breathing spray. P264 Wash contaminated skin thoroughly after handling. 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. P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTRE/doctor if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/ attention. P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

2.3. Other hazards

Other hazards

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

Containers can burst violently or explode when heated, due to excessive pressure build-up.

SECTION 3: Composition/information on ingredients

3.2. Mixtures		
METHYL ACETATE		30-60%
CAS number: 79-20-9	EC number: 201-185-2	REACH registration number: 01-
		2119459211-47-XXXX
Classification		
Flam. Liq. 2 - H225		
Eye Irrit. 2 - H319		
STOT SE 3 - H336		

n-heptane		10-25%
CAS number: 142-82-5	EC number: 205-563-8	REACH registration number: 01- 2119457603-38-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification		
Flam. Liq. 2 - H225		
Skin Irrit. 2 - H315		
STOT SE 3 - H336		
Asp. Tox. 1 - H304		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		
Carbon dioxide		5-10%
CAS number: 124-38-9	EC number: 204-696-9	
Classification		
Press. Gas (Liq.) - H280		
dimethyl ether		5-10%
CAS number: 115-10-6	EC number: 204-065-8	REACH registration number: 01- 2119472128-37-XXXX
Classification Flam. Gas 1A - H220 Press. Gas (Comp.) - H280)	
The full text for all hazard sta	atements is displayed in Section 16.	
SECTION 4: First aid measu	ires	
4.1. Description of first aid m	neasures	
General information	Get medical attention immediately. Show this	s Safety Data Sheet to the medical personnel.
Inhalation	keep warm and at rest in a position comfortal Loosen tight clothing such as collar, tie or be	It. When breathing is difficult, properly trained ninistering oxygen. Place unconscious person on
Ingestion	feels sick as vomiting may be dangerous. Do medical personnel. If vomiting occurs, the he enter the lungs. Never give anything by mout	st in a position comfortable for breathing. Place very position and ensure breathing can take
Skin contact	Remove contamination with soap and water or rinse for at least 15 minutes. If adhesive bond	or recognised skin cleansing agent. Continue to ding occurs, do not force skin apart.

Eye contactRinse 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	e medical attention and special treatment needed
Notes for the doctor	Treat symptomatically.
SECTION 5: Firefighting measu	Ires
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 fro	m 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

d d p to v	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 ouch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate rentilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly emove any clothing that becomes contaminated.
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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

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

METHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm 616 mg/m³ Short-term exposure limit (15-minute): WEL 250 ppm 770 mg/m³

n-heptane

Long-term exposure limit (8-hour TWA): WEL 500 ppm 2085 mg/m³

Carbon dioxide

Long-term exposure limit (8-hour TWA): WEL 5000 ppm 9150 mg/m³ Short-term exposure limit (15-minute): WEL 15000 ppm 27400 mg/m³

dimethyl ether

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 WEL = Workplace Exposure Limit.

METHYL ACETATE (CAS: 79-20-9)

DNEL	Workers - Inhalation; Long term systemic effects: 610 mg/m ³ Workers - Inhalation; Long term local effects: 305 mg/m ³ Workers - Dermal; Long term systemic effects: 88 mg/kg/day General population - Inhalation; Long term systemic effects: 131 mg/m ³ General population - Inhalation; Long term local effects: 152 mg/m ³ General population - Dermal; Long term systemic effects: 44 mg/kg/day General population - Oral; Long term systemic effects: 44 mg/kg/day
PNEC	 Fresh water; 0.12 mg/l marine water; 0.012 mg/l Intermittent release; 1.2 mg/l STP; 600 mg/l Sediment (Freshwater); 0.128 mg/kg Sediment (Marinewater); 0.013 mg/kg Soil; 20.4 mg/kg

n-heptane (CAS: 142-82-5)

DNEL	Workers - Inhalation; Long term systemic effects: 2085 mg/m ³ Workers - Dermal; Long term systemic effects: 300 mg/kg/day General population - Inhalation; Long term systemic effects: 447 mg/m ³ General population - Dermal; Long term systemic effects: 149 mg/kg/day General population - Oral; Long term systemic effects: 149 mg/kg/day dimethyl ether (CAS: 115-10-6)
DNEL	Workers - Inhalation; Long term systemic effects: 1894 mg/m ³ General population - Inhalation; Long term systemic effects: 471 mg/m ³
PNEC Pentaerythritol	 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
DNEL	Workers - Inhalation; Long term systemic effects: 9.5 mg/m ³ Workers - Dermal; Long term systemic effects: 27 mg/kg/day General population - Inhalation; Long term systemic effects: 2.3 mg/m ³ General population - Dermal; Long term systemic effects: 13.5 mg/kg/day General population - Oral; Long term systemic effects: 1.4 mg/kg/day
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

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.

Provide adequate ventilation. Personal, workplace environment or biological monitoring may

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 EN136.
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

9.1. Information on basic phys	ical and chemical properties
Appearance	Aerosol.
Colour	Amber.
Odour	Characteristic.
Odour threshold	Not available.
рН	Not available.
Melting point	Not available.
Initial boiling point and range	57°C @ 1013 hPa
Flash point	-15°C
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	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	0.83
Solubility(ies)	Insoluble in water.

Partition coefficient	Not available.
Auto-ignition temperature	275°C
Decomposition Temperature	Not available.
Viscosity	Not available.
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 273 g/l.
SECTION 10: Stability and rea	activity
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
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 decompositio	on products
Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes.
SECTION 11: Toxicological int	formation
11.1. Information on toxicologi	cal effects
Acute toxicity - oral Notes (oral LD₅o)	Based on available data the classification criteria are not met.
Acute toxicity - dermal Notes (dermal LD₅₀)	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	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.		
Aspiration hazard			
Aspiration hazard	May be fatal if swallowed and enters airways.		
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.			
	METHYL ACETATE		
Acute toxicity - d	ermal		
Notes (dermal LI	D₅₀) LD₅₀ : > 2000 mg/kg, Dermal, Rat		
Skin corrosion/iri	itation		
Animal data	Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema		
score: No oedema (0). Not irritating.			
Serious eye dam	age/irritation		
Serious eye	Dose: 0.1 ml, 1 - 72 hours, Rabbit Irritating.		
damage/irritation			
Skin sensitisation	-		
Skin sensitisation			
Germ cell mutag	enicity		
Genotoxicity - in	vitro Gene mutation: Negative.		

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Genotoxicity - in vivo	Chromosome aberration: Negative.		
Specific target organ toxicity - single exposure			
STOT - single exposure May cause drowsiness or dizziness.			
n-heptane			
Aquto tovicity and			
Acute toxicity - oral			
Notes (oral LD ₅₀)	LD₅₀ : > 5000 mg/kg, Oral, Rat		
Acute toxicity - dermal			
Notes (dermal LD ₅₀)	LD₅₀ : > 2000 mg/kg, Dermal, Rabbit		
Acute toxicity - inhalation			
Notes (inhalation LC₅₀)	LC₅₀ : > 29.29 mg/l, Inhalation, Vapour, Rat		
Skin corrosion/irritation			
Animal data	Dose: 0.5 ml, 24 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Oedema score: No oedema (0). Primary dermal irritation index: 0.25 Irritating.		
Skin sensitisation			
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.		
Germ cell mutagenicity			
Genotoxicity - in vitro	Chromosome aberration: Negative.		
Reproductive toxicity			
Reproductive toxicity - fertility	Two-generation study - NOAEL 31680 mg/m³, Inhalation, Rat P		
Specific target organ toxicit	y - single exposure		
STOT - single exposure	May cause drowsiness or dizziness.		
Specific target organ toxicit	ty - repeated exposure		
STOT - repeated exposure	NOAEC 12470 mg/m³, Inhalation, Rat		
Aspiration hazard			
Aspiration hazard	May be fatal if swallowed and enters airways.		
	dimethyl ether		
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		

Acute toxicity - oral			
Notes (oral LD50)	LD₅₀ : > 5000 mg/kg, Oral, Mouse		
Acute toxicity - dermal			
Notes (dermal LD ₅₀)	LD₅₀ : > 3160 mg/kg, Dermal, Rabbit		
Acute toxicity - inhalation			
Notes (inhalation LC ₅₀)	LC₅₀ : > 1951 mg/m³, Inhalation, Aerosol, Rat 4 hours		
Skin corrosion/irritation			
Animal data	Dose: 500 mg, 24 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.		
Serious eye damage/irritat	ion		
Serious eye damage/irritation	Not irritating.		
Skin sensitisation			
Skin sensitisation	- Guinea pig: Not sensitising.		
Germ cell mutagenicity			
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.		
Genotoxicity - in vivo	Chromosome aberration: Negative.		
Carcinogenicity			
Carcinogenicity	NOAEL 10000 ppm, Oral, Rat		
Reproductive toxicity			
Reproductive toxicity - fertility	Two-generation study - NOAEL ≥ 1000 ppm, Oral, Rat F1		
Specific target organ toxicity - repeated exposure			
STOT - repeated exposure	NOAEL 10000 ppm, Oral, Rat		

Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)

SECTION 12: Ecological information

12.1. Toxicity

Toxicity

Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

METHYL ACETATE

Acute aquatic toxicity

Acute toxicity - fish	LC ₀ , 48 hours: 250 mg/l, Brachydanio rerio (Zebra Fish) LC ₅₀ , 48 hours: 250 - 350 mg/l, Brachydanio rerio (Zebra Fish) LC ₁₀₀ , 48 hours: 500 mg/l, Brachydanio rerio (Zebra Fish) LC ₀ , 96 hours: 250 mg/l, Brachydanio rerio (Zebra Fish) LC ₅₀ , 96 hours: 250 - 350 mg/l, Brachydanio rerio (Zebra Fish) LC ₁₀₀ , 96 hours: 500 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC₀, 48 hours: 362 mg/l, Daphnia magna EC₅₀, 48 hours: 1026.7 mg/l, Daphnia magna EC₁₀₀, 48 hours: 1448.2 mg/l, Daphnia magna

Acute toxicity - aquatic plants	EC_{50} , 72 hours: > 120 mg/l, Desmodesmus subspicatus EC_{100} , 72 hours: > 100 mg/l, Desmodesmus subspicatus NOEC, 72 hours: 120 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC₅₀, 16 hours: 6000 mg/l, Pseudomonas putida
	n-heptane
Acute aquatic toxicity	
LE(C)₅₀	$0.1 < L(E)C50 \le 1$
M factor (Acute)	1
Acute toxicity - fish	LL₅₀, 96 hours: 5.738 mg/l, Oncorhynchus mykiss (Rainbow trout) Calculation method.
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 1.5 mg/l, Daphnia magna
Chronic aquatic toxicity	
M factor (Chronic)	1
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.17 mg/l, Daphnia magna LOEC, 21 days: 0.32 mg/l, Daphnia magna EC₅₀, 21 days: 0.23 mg/l, Daphnia magna
	dimethyl ether
Acute aquatic toxicity	dimethyl ether
<u>Acute aquatic toxicity</u> Acute toxicity - fish	<u>dimethyl ether</u> LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy)
<u>_</u>	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy)
Acute toxicity - fish Acute toxicity - aquatic invertebrates	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy) EC₅₀, 48 hours: > 4400 mg/l, Daphnia magna
Acute toxicity - fish Acute toxicity - aquatic invertebrates	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy) EC₅₀, 48 hours: > 4400 mg/l, Daphnia magna NOEC, 48 hours: ≥ 4400 mg/l, Daphnia magna
Acute toxicity - fish Acute toxicity - aquatic invertebrates Penta	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy) EC₅₀, 48 hours: > 4400 mg/l, Daphnia magna NOEC, 48 hours: ≥ 4400 mg/l, Daphnia magna
Acute toxicity - fish Acute toxicity - aquatic invertebrates <u>Penta</u> Acute aquatic toxicity	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy) EC₅₀, 48 hours: > 4400 mg/l, Daphnia magna NOEC, 48 hours: ≥ 4400 mg/l, Daphnia magna merythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) LC₀, 96 hours: ≥ 100 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - fish Acute toxicity - aquatic invertebrates <u>Penta</u> <u>Acute aquatic toxicity</u> Acute toxicity - fish Acute toxicity - aquatic	LC₅₀, 96 hours: > 4100 mg/l, Poecilia reticulata (Guppy) NOEC, 96 hours: ≥ 4100 mg/l, Poecilia reticulata (Guppy) EC₅₀, 48 hours: > 4400 mg/l, Daphnia magna NOEC, 48 hours: ≥ 4400 mg/l, Daphnia magna nerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) LC₀, 96 hours: ≥ 100 mg/l, Brachydanio rerio (Zebra Fish) LC₅₀, 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish) EC₅₀, 24 hours: 31 mg/l, Daphnia magna EC₅₀, 24 hours: > 86 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.

METHYL ACETATE

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Phototransfo	ormation	Air - DT₅₀ : 50.4 days		
Biodegradat	ion	Water - Degradation (70%): 28 days The substance is readily biodegradable.		
		n-heptane		
Phototransfo	ormation	Air - DT₅₀ : 4.5 days		
Biodegradat	ion	Water - Degradation (70%): 10 days The substance is readily biodegradable.		
		dimethyl ether		
Biodegradat	ion	Water - Degradation (5%): 28 days No biodegradation observed under test conditions.		
	Pentae	erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)		
Phototransfo	ormation	Air - DT₅₀ : 0.15 days		
Biodegradat	ion	Water - Degradation (5%): 28 days No biodegradation observed under test conditions.		
12.3. Bioaccumulative pot	tential			
Bioaccumulative potential	No data	available on bioaccumulation.		
Partition coefficient	Partition coefficient Not available.			
Ecological information on ingredients.				
	ingreatents.			
	ingredients.	Carbon dioxide		
Partition coe		Carbon dioxide		
	fficient	log Kow: 2.26		
Partition coe	officient	log Kow: 2.26 dimethyl ether		
Partition coe Partition coe	officient	log Kow: 2.26 dimethyl ether log Pow: 0.07		
Partition coe Partition coe	officient officient <u>Pentae</u> ative potential	log Kow: 2.26 dimethyl ether log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)		
Partition coe Partition coe Bioaccumula	officient officient <u>Pentae</u> ative potential	log Kow: 2.26 <u>dimethyl ether</u> log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) The product is not bioaccumulating.		
Partition coe Partition coe Bioaccumula Partition coe	officient Officient <u>Pentae</u> ative potential	log Kow: 2.26 <u>dimethyl ether</u> log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) The product is not bioaccumulating. log Pow: 22.7 duct contains volatile organic compounds (VOCs) which will evaporate easily from all		
Partition coe Partition coe Bioaccumula Partition coe 12.4. Mobility in soil	officient efficient <u>Pentac</u> ative potential officient The proc surfaces	log Kow: 2.26 <u>dimethyl ether</u> log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) The product is not bioaccumulating. log Pow: 22.7 duct contains volatile organic compounds (VOCs) which will evaporate easily from all		
Partition coe Partition coe Bioaccumula Partition coe <u>12.4. Mobility in soil</u> Mobility	officient efficient <u>Pentac</u> ative potential officient The proc surfaces	log Kow: 2.26 <u>dimethyl ether</u> log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) The product is not bioaccumulating. log Pow: 22.7 duct contains volatile organic compounds (VOCs) which will evaporate easily from all		
Partition coe Partition coe Bioaccumula Partition coe <u>12.4. Mobility in soil</u> Mobility	officient efficient <u>Pentae</u> ative potential officient The proc surfaces <u>ingredients.</u>	log Kow: 2.26 <u>dimethyl ether</u> log Pow: 0.07 erythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) The product is not bioaccumulating. log Pow: 22.7 duct contains volatile organic compounds (VOCs) which will evaporate easily from all		

dimethyl ether

Mobility

The product is soluble in water.

Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)

Henry's law constant 0 Pa m³/mol @ 25°C

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

METHYL ACETATE

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

n-heptane

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

Carbon dioxide

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

dimethyl ether

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

Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)

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

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	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. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. The generation of waste should be minimised or avoided wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods	Do not empty into drains. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Dispose of contents/container in accordance with national regulations.
Waste class	The waste code classification is to be carried out according to the European Waste Catalogue (EWC).

SECTION 14: Transport information			
14.1. UN number			
UN No. (ADR/RID)	3501		
UN No. (IMDG)	3501		
UN No. (ICAO)	3501		
UN No. (ADN)	3501		
14.2. UN proper shipping name			
Proper shipping name (ADR/RID)	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (METHYL ACETATE, HEPTANE)		
Proper shipping name (IMDG)	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (METHYL ACETATE, HEPTANE)		
Proper shipping name (ICAO)	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (METHYL ACETATE, HEPTANE)		
Proper shipping name (ADN)	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (METHYL ACETATE, HEPTANE)		
14.3. Transport hazard class(es)			
ADR/RID class	2.1		
ADR/RID classification code	8F		
ADR/RID label	2.1		
IMDG class	2.1		
ICAO class/division	2.1		
ADN class	2.1		
Transport labels			



14.4. Packing group

No information required.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special p	precautions	for	user
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EmS	F-D, S-U
ADR transport category	2
Emergency Action Code	2YE
Hazard Identification Number (ADR/RID)	23
Tunnel restriction code	(B/D)
14.7 Transport in bulk accordi	ng to Annov II of MA

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

Transport in bulk according to No information required. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information	
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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

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
	ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
	RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
	IATA: International Air Transport Association.
	ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
	IMDG: International Maritime Dangerous Goods.
	CAS: Chemical Abstracts Service.
	LC₅₀: Lethal Concentration to 50 % of a test population.
	LD_{50} : Lethal Dose to 50% of a test population (Median Lethal Dose).
	EC ₅₀ : 50% of maximal Effective Concentration.
	PBT: Persistent, Bioaccumulative and Toxic substance.
	vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations and acronyms	Aerosol = Aerosol Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation
	STOT SE = Specific target organ toxicity-single exposure Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Classification procedures according to Regulation (EC) 1272/2008	Aerosol 1 - H222, H229: Expert judgement. Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, STOT SE 3 - H336, Asp. Tox. 1 - H304, Aquatic Chronic 2 - H411: Calculation method.
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision date	14/12/2020

Revision	21
Supersedes date	02/12/2020
SDS number	23918
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. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

DIRECTIONS FOR USE

PRODUCT LOGO

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.