

TRC Contact Adhesive

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

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

1.1. Product Identifier

Product name	TRC Contact Adhesive Aerosol
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	AEROSOLS (contains Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane and n-pentane)
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Adhesive
Uses advised against	Not Applicable

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

Registered company name	Dove Technology Ltd
Address	Douglas Park, Opal Way, Stone, Staffordshire ST15 0YJ United Kingdom
Telephone	+44 (0)1785 818 258
Fax	Not Available
Website	www.dtadhesives.com
Email	qc@dovetechnology.co.uk

1.4. Emergency telephone number

Association / Organisation	National Poisons Information Service
Emergency telephone numbers	0344 892 0111 (Healthcare professionals only)
Other emergency telephone numbers	Dove Technology: +44 (0)1785 818 258 (office hours only)

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]	H336 - Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, H411 - Hazardous to the Aquatic Environment Long-Term Hazard Category 2, H222+H229 - Aerosols Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

2.2. Label elements

Hazard pictogram(s)	
Signal word	Danger

Hazard statement(s)

H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.

Supplementary statement(s)

EUH066	Repeated exposure may cause skin dryness or cracking.
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EUH044 Risk of explosion if heated under confinement.

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.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing gas
P273	Avoid release to the environment.

Precautionary statement(s) Response

P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P391	Collect spillage.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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2.3. Other hazards

dimethyl ether	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
n-pentane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
acetone	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
1.115-10-6 2.204-065-8 3.603-019-00-8 4. Not Available	30-60	<u>dimethyl ether</u> *	Flammable Gases Category 1, Gases Under Pressure; H220, H280 [2]	Not Available	Not Available
1.109-66-0 2.203-692-4 3.601-006-00-1 4. Not Available	10-30	<u>n-pentane</u> *	Flammable Liquids Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Aspiration Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H225, H336, H304, H411 [2]	Not Available	Not Available
1.67-64-1 2.200-662-2 3.606-001-00-8 4. Not Available	1-5	<u>acetone</u> *	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H225, H319, H336 [2]	Not Available	Not Available
1. Not Available 2. Not Available 3. Not Available 4. Not Available	10-30	<u>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane</u>	Not Applicable	Not Available	Not Available

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

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	<p>If aerosols come in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
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Skin Contact	<p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available). ▶ Remove any adhering solids with industrial skin cleansing cream. ▶ DO NOT use solvents. ▶ Seek medical attention in the event of irritation.
Inhalation	<p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> ▶ Remove to fresh air. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. ▶ Avoid giving milk or oils. ▶ Avoid giving alcohol. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

For petroleum distillates

- In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
- Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
- Positive pressure ventilation may be necessary.
- Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
- After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
- Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
- Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

BP America Product Safety & Toxicology Department

Treat symptomatically.

for lower alkyl ethers:

BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ A low-stimulus environment must be maintained.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate and treat, where necessary, for seizures.
- ▶ **DO NOT use emetics.** Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension without signs of hypovolaemia may require vasopressors.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

- ▶ Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- ▶ Ethers may produce anion gap acidosis. Hyperventilation and bicarbonate therapy might be indicated.
- ▶ Haemodialysis might be considered in patients with impaired renal function.
- ▶ Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 Firefighting measures

5.1. Extinguishing media

SMALL FIRE:

Water spray, dry chemical or CO2

LARGE FIRE:

Water spray or fog.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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5.3. Advice for firefighters

Fire Fighting	
Fire/Explosion Hazard	<p>carbon dioxide (CO₂)</p> <p>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>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> <p>WARNING: Aerosol containers may present pressure related hazards.</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"> ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Wear protective clothing, impervious gloves and safety glasses.
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.

6.4. Reference to other sections

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

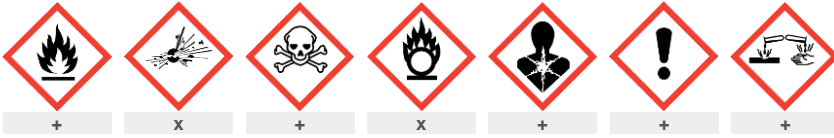
SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	<p>The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.</p> <p>Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.</p> <ul style="list-style-type: none"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area.
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"> ▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. ▶ For materials with a viscosity of at least 2680 cSt. ▶ Aerosol dispenser. ▶ Check that containers are clearly labelled.
Storage incompatibility	<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>n-Pentane</p> <ul style="list-style-type: none"> ▶ reacts violently with strong oxidisers ▶ attacks some plastics, rubber and coatings ▶ may generate static charges o flow or agitation, due to low conductivity <p>Ethers</p> <ul style="list-style-type: none"> · may react violently with strong oxidising agents and acids. · can act as bases.- they form salts with strong acids and addition complexes with Lewis acids; the complex between diethyl ether and boron trifluoride is an example. · are generally stable to water under neutral conditions and ambient temperatures. <ul style="list-style-type: none"> ▶ The tendency of many ethers to form explosive peroxides is well documented. ▶ Ethers lacking non-methyl hydrogen atoms adjacent to the ether link are thought to be relatively safe. ▶ When solvents have been freed from peroxides (by percolation through a column of activated alumina for example), the absorbed peroxides must promptly be desorbed by treatment with the polar solvents methanol or water, which should be discarded safely.



X — Must not be stored together
 O — May be stored together with specific precautions
 + — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

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
dimethyl ether	Inhalation 1 894 mg/m ³ (Systemic, Chronic) Inhalation 471 mg/m ³ (Systemic, Chronic) *	0.155 mg/L (Water (Fresh)) 0.016 mg/L (Water - Intermittent release) 1.549 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)
n-pentane	Dermal 432 mg/kg bw/day (Systemic, Chronic) Inhalation 3 000 mg/m ³ (Systemic, Chronic) Dermal 214 mg/kg bw/day (Systemic, Chronic) * Inhalation 643 mg/m ³ (Systemic, Chronic) * Oral 214 mg/kg bw/day (Systemic, Chronic) *	230 µg/L (Water (Fresh)) 230 µg/L (Water - Intermittent release) 880 µg/L (Water (Marine)) 1.2 mg/kg sediment dw (Sediment (Fresh Water)) 1.2 mg/kg sediment dw (Sediment (Marine)) 0.55 mg/kg soil dw (Soil) 3600 µg/L (STP)
acetone	Dermal 186 mg/kg bw/day (Systemic, Chronic) Inhalation 1 210 mg/m ³ (Systemic, Chronic) Inhalation 2 420 mg/m ³ (Local, Acute) Dermal 62 mg/kg bw/day (Systemic, Chronic) * Inhalation 200 mg/m ³ (Systemic, Chronic) * Oral 62 mg/kg bw/day (Systemic, Chronic) *	10.6 mg/L (Water (Fresh)) 1.06 mg/L (Water - Intermittent release) 21 mg/L (Water (Marine)) 30.4 mg/kg sediment dw (Sediment (Fresh Water)) 3.04 mg/kg sediment dw (Sediment (Marine)) 29.5 mg/kg soil dw (Soil) 100 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).	dimethyl ether	Dimethyl ether	400 ppm / 766 mg/m ³	958 mg/m ³ / 500 ppm	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	n-pentane	Pentane	600 ppm / 1800 mg/m ³	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	acetone	Acetone	500 ppm / 1210 mg/m ³	3620 mg/m ³ / 1500 ppm	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
dimethyl ether	3,000 ppm	3800* ppm	7200* ppm
n-pentane	3000* ppm	33000*** ppm	200000*** ppm
acetone	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
dimethyl ether	Not Available	Not Available
n-pentane	1,500 ppm	Not Available
acetone	2,500 ppm	Not Available

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.
8.2.2. Personal protection	

Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. <p>No special equipment for minor exposure i.e. when handling small quantities.</p> <p>OTHERWISE: For potentially moderate or heavy exposures:</p> <ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Neoprene gloves ▶ No special equipment needed when handling small quantities. ▶ OTHERWISE: ▶ For potentially moderate exposures: ▶ Wear general protective gloves, eg. light weight rubber gloves. ▶ For potentially heavy exposures: ▶ Wear chemical protective gloves, eg. PVC.
Body protection	See Other protection below
Other protection	<p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> ▶ Overalls. ▶ Skin cleansing cream.

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:

Spraybond EPDM Adhesive

Material	CPI
BUTYL	C
BUTYL/NEOPRENE	C
CPE	C
HYPALON	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
PVDC/PE/PVDC	C
SARANEX-23	C
SARANEX-23 2-PLY	C
TEFLON	C
VITON	C
VITON/NEOPRENE	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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	Blue		
Physical state	Aerosol	Relative density (Water = 1)	0.75-0.8 (liquid base @ 20°C)
Odour	Characteristic	Partition coefficient n-octanol / water	Not Available

Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	7-8	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	200.00-500.00
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	In use may form flammable/explosive vapour-air mixture.
Flammability	Not Available	Oxidising properties	Does not meet the criteria for classification as oxidising.
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (Bar)	2-5@ 20°C	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	<ul style="list-style-type: none"> ▶ Elevated temperatures. ▶ Presence of open flame. ▶ Product is considered stable.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Inhaled	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause inco-ordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> <p>Following inhalation, ethers cause lethargy and stupor. Inhaling lower alkyl ethers results in headache, dizziness, weakness, blurred vision, seizures and possible coma.</p> <p>Symptoms of pentane inhalation exposure may include hyperactivity, numbness and a persistent taste of gasoline. Inhalation of high vapour concentrations may result in coughing, headache, mild depression, inco-ordination, blurred vision, confusion, loss of appetite, nausea, vomiting, irregular heartbeat and unconsciousness.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</p> <p>Spray mist may produce discomfort</p>
Ingestion	<p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Ingestion of alkyl ethers may produce stupor, blurred vision, headache, dizziness and irritation of the nose and throat. Respiratory distress and asphyxia may result.</p> <p>Ingestion of pentanes may result in nausea, vomiting, abdominal distension, diarrhoea, bleeding in the mucous membranes and suffocation leading to brain damage and death, while large doses may cause central nervous system depression and irregular heart rhythm.</p> <p>Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.</p> <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.</p>

Skin Contact	<p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Spray mist may produce discomfort Alkyl ethers may defat and dehydrate the skin producing dermatoses. Absorption may produce headache, dizziness, and central nervous system depression. Symptoms of pentane exposure may include drying, cracking, itching, blistering, redness, pigmentation, swelling, burning and pain. Body absorption is not expected to be a significant route of entry because its boiling point is less than body temperature. Material on the skin evaporates rapidly and may cause tingling, chilling and even temporary numbness Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	<p>Eye contact with alkyl ethers (vapour or liquid) may produce irritation, redness and tears. Eye-contact with the liquid pentanes may cause irritation of the eye and mucous membranes resulting in pain, drying, redness, swelling and excessive secretion of tears. Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion. This material can cause eye irritation and damage in some persons.</p>
Chronic	<p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to alkyl ethers may result in loss of appetite, excessive thirst, fatigue, and weight loss. Chronic or repeated exposure to pentanes may cause lung inflammation, fluid in the lungs and nerve damage. It may manifest with dizziness, weight loss, anaemia, nervousness, pain in the limbs and numbness ("pins and needles sensation"). Inhalation may result in chrome ulcers or sores in the mucous membranes of the nose, and lung damage.</p>

Spraybond EPDM Adhesive	TOXICITY	IRRITATION
	Not Available	Not Available
dimethyl ether	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: >20000 ppm4h ^[1]	Not Available
n-pentane	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 3000 mg/kg ^[2]	Not Available
	Inhalation(Rat) LC50: >25.3 mg/l4h ^[1]	
	Oral (Rat) LD50: >2000 mg/kg ^[1]	
acetone	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 500 ppm - irritant
	Inhalation(Mouse) LC50: 44 mg/L4h ^[2]	Eye (rabbit): 20mg/24hr - moderate
	Oral (Rat) LD50: 5800 mg/kg ^[2]	Eye (rabbit): 3.95 mg - SEVERE
		Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit): 500 mg/24hr - mild
	Skin (rabbit):395mg (open) - mild	
	Skin: no adverse effect observed (not irritating) ^[1]	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

Spraybond EPDM Adhesive	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet.</p>
N-PENTANE	[GENIUM and CCINFO, V.W.&R.]
ACETONE	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. For acetone: The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause macrocytic anaemia.</p>

Acute Toxicity	✘	Carcinogenicity	✘
Skin Irritation/Corrosion	✘	Reproductivity	✘
Serious Eye Damage/Irritation	✘	STOT - Single Exposure	✔
Respiratory or Skin sensitisation	✘	STOT - Repeated Exposure	✘

Mutagenicity **X**

Aspiration Hazard **X**

Legend: **X** – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine Disruption Properties

Many chemicals may mimic or interfere with the body's hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.

Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body various cancers and sexual development problems.

Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

SECTION 12 Ecological information

12.1. Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
	Spraybond EPDM Adhesive	Not Available	Not Available	Not Available	Not Available
dimethyl ether	EC50	48h	Crustacea	>4400mg/L	2
	NOEC(ECx)	48h	Crustacea	>4000mg/l	1
	LC50	96h	Fish	1783.04mg/l	2
	EC50	96h	Algae or other aquatic plants	154.917mg/l	2
n-pentane	EC50	72h	Algae or other aquatic plants	1.26mg/l	2
	EC50	48h	Crustacea	2.7mg/l	2
	EC50(ECx)	8h	Algae or other aquatic plants	1mg/l	1
	LC50	96h	Fish	4.26mg/l	2
acetone	NOEC(ECx)	12h	Fish	0.001mg/L	4
	EC50	48h	Crustacea	6098.4mg/L	5
	LC50	96h	Fish	3744.6-5000.7mg/L	4
	EC50	96h	Algae or other aquatic plants	9.873-27.684mg/l	4
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

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

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the oxygen transfer between the air and the water

Oils of any kind can cause:

- ▶ drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- ▶ lethal effects on fish by coating gill surfaces, preventing respiration
- ▶ asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- ▶ adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.

For petroleum distillates:

Environmental fate:

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption. These processes will cause changes in the composition of these UVCB substances. In the case of spills on land or water surfaces, photodegradation-another fate process-can also be significant.

Most ethers are very resistant to hydrolysis, and the rate of cleavage of the carbon-oxygen bond by abiotic processes is expected to be insignificant.

Direct photolysis will not be an important removal process since aliphatic ethers do not absorb light at wavelengths >290 nm

For Isopentane: Koc ~520; Henry's Law Constant: 1.4 atm-cu m/mole; Water Solubility: 48mg/L; Vapor pressure ~689 mm Hg.

Atmospheric Fate: Isopentane is expected to exist only as vapor in the atmosphere. Vapor-phase isopentane is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 4 days.

Environmental Fate: n-Pentane may be released into the environment through various waste streams as a result of its production and use as a general laboratory solvent, solvent for polymerization reactions, and as a raw material in the synthesis of olefins and other industrial chemicals.

Terrestrial Fate: If released to soil, n-pentane is expected to volatilize from moist and dry soil surfaces based upon its physico-chemical properties. Screening test results show that n-pentane may undergo biodegradation under aerobic conditions.

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air

Ingredient	Persistence: Water/Soil	Persistence: Air
dimethyl ether	LOW	LOW
n-pentane	LOW	LOW
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
dimethyl ether	LOW (LogKOW = 0.1)
n-pentane	LOW (BCF = 2.35)
acetone	LOW (BCF = 0.69)

12.4. Mobility in soil

Ingredient	Mobility
dimethyl ether	HIGH (KOC = 1.292)
n-pentane	LOW (KOC = 80.77)
acetone	HIGH (KOC = 1.981)

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?			
vPvB	No		

12.6. Endocrine Disruption Properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine disruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities, immune dysfunction and skeletal deformities.

12.7. Other adverse effects

Not Available



SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Consult State Land Waste Management Authority for disposal. ▶ Discharge contents of damaged aerosol cans at an approved site. ▶ Allow small quantities to evaporate.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

	
Marine Pollutant	
HAZCHEM	Not Applicable

Land transport (ADR-RID)

14.1. UN number	1950
14.2. UN proper shipping name	AEROSOLS (contains Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane and n-pentane)

14.3. Transport hazard class(es)	Class	2.1
	Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Hazard identification (Kemler)	Not Applicable
	Classification code	5F
	Hazard Label	2.1
	Special provisions	190 327 344 625
	Limited quantity	1 L
	Tunnel Restriction Code	2 (D)

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950	
14.2. UN proper shipping name	Aerosols, flammable (contains Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane and n-pentane)	
14.3. Transport hazard class(es)	ICAO/IATA Class	2.1
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	10L
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Special provisions	A145 A167 A802
	Cargo Only Packing Instructions	203
	Cargo Only Maximum Qty / Pack	150 kg
	Passenger and Cargo Packing Instructions	203
	Passenger and Cargo Maximum Qty / Pack	75 kg
	Passenger and Cargo Limited Quantity Packing Instructions	Y203
	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1950	
14.2. UN proper shipping name	AEROSOLS (contains Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane and n-pentane)	
14.3. Transport hazard class(es)	IMDG Class	2.1
	IMDG Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Marine Pollutant	
14.6. Special precautions for user	EMS Number	F-D, S-U
	Special provisions	63 190 277 327 344 381 959
	Limited Quantities	1000 ml

Inland waterways transport (ADN)

14.1. UN number	1950	
14.2. UN proper shipping name	AEROSOLS (contains Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane and n-pentane)	
14.3. Transport hazard class(es)	2.1	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Classification code	5F
	Special provisions	190; 327; 344; 625
	Limited quantity	1 L
	Equipment required	PP, EX, A
	Fire cones number	1

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

Not Applicable

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

Product name	Group
dimethyl ether	Not Available
n-pentane	Not Available
acetone	Not Available
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Not Available

14.9. Transport in bulk in accordance with the ICG Code

Product name	Ship Type
dimethyl ether	Not Available
n-pentane	Not Available
acetone	Not Available
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Not Available

SECTION 15 Regulatory information

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

dimethyl ether is found on the following regulatory lists

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

UK Workplace Exposure Limits (WELs).

UK REACH grandfathered registrations notified substances list

n-pentane is found on the following regulatory lists

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

UK Workplace Exposure Limits (WELs).

UK REACH grandfathered registrations notified substances list

acetone is found on the following regulatory lists

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

UK Workplace Exposure Limits (WELs).

UK REACH grandfathered registrations notified substances list

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

15.2. Chemical safety assessment

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

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
dimethyl ether	115-10-6	603-019-00-8	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Comp.; Muta. 1B; Carc. 1A; STOT SE 3; STOT SE 1; Skin Irrit. 2; Eye Irrit. 2	GHS04; Dgr; GHS01; GHS08	H220; H280; H336; H370; H315; H319

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

Ingredient	CAS number	Index No	ECHA Dossier
n-pentane	109-66-0	601-006-00-1	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Asp. Tox. 1; STOT SE 3; Aquatic Chronic 2	GHS08; GHS02; GHS09; Dgr	H225; H304; H336; H411
2	Flam. Liq. 1; Asp. Tox. 1; STOT SE 3; Aquatic Chronic 2; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3	GHS08; GHS09; Dgr; GHS01	H224; H304; H336; H411; H315; H319; H335

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

Ingredient	CAS number	Index No	ECHA Dossier
acetone	67-64-1	606-001-00-8	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS02; GHS07; Dgr	H225; H319; H336

2	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; STOT SE 3; STOT SE 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	Dgr; GHS08; GHS01; GHS06; GHS09	H225; H319; H336; H371; H228; H315; H312; H335; H302; H332; H340; H317; H411
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Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Canada - DSL	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Canada - NDSL	No (dimethyl ether; n-pentane; acetone; Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
China - IECSC	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
USA - TSCA	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Taiwan - TCSI	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Mexico - INSQ	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Vietnam - NCI	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Russia - FBEPH	No (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)>
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	25/01/2022
Initial Date	13/01/2022

Full text Risk and Hazard codes

H220	Extremely flammable gas.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H370	Causes damage to organs.
H371	May cause damage to organs.

SDS Version Summary

Version	Date of Update	Sections Updated
1.6	25/01/2022	Fire Fighter (fire/explosion hazard), 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.

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

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