



Recochem Shell Tyre Repair (Aerosol)

Recochem Inc. (PFX GROUP)

Chemwatch: 5327-96

Version No: 5.1

Safety Data Sheet according to WHMIS 2023 requirements

Initial Date: 17/12/2019

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Print Date: 18/05/2026

S.GHS.CAN.EN.E

SECTION 1 Identification

Product Identifier

Product name	Recochem Shell Tyre Repair (Aerosol)
Chemical Name	Not Applicable
Synonyms	Product Code: 71220-280SCC; aerosol tyre sealant
Proper shipping name	AEROSOLS, FLAMMABLE
Chemical formula	Not Applicable
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	Aerosol tyre sealant. Use according to manufacturer's directions. Application is by spray atomisation from a hand held aerosol pack
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Recochem Inc. (PFX GROUP)
Address	850 Montée de Liesse Saint-Laurent QC H4T 1P4 Canada
Telephone	514-341-3550
Fax	Not Available
Website	www.recochem.com
Email	TPerks@recochem.com

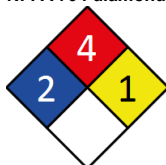
Emergency phone number

Association / Organisation	CANUTEC	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone number(s)	613-996-6666 (24/7 365)	+1 867 670 2867 (ID#: 5327-96)
Other emergency telephone number(s)	Not Available	+61 3 9573 3188

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health, Red = Fire, Yellow = Reactivity and White = Special (Oxidizer or water reactive substances)

Canadian WHMIS Symbols



Classification	Aerosols, Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Germ Cell Mutagenicity Category 1B, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 3, Simple Asphyxiant
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Label elements

Recochem Shell Tyre Repair (Aerosol)

Hazard pictogram(s)	
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Signal word	Danger
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Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.
	May displace oxygen and cause rapid suffocation

Physical and Health hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe gas.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P273	Avoid release to the environment.
P202	Do not handle until all safety precautions have been read and understood.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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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No further product hazard information.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
107-21-1	<5	<u>ethylene glycol</u>
9003-20-7	<5	<u>vinyl acetate homopolymer</u>
532-32-1	<1	<u>sodium benzoate</u>
1336-21-6	<1	<u>ammonium hydroxide</u>
7732-18-5	10-30	<u>water</u>
74-98-6	10-30	<u>propane</u>
106-97-8.	<15	<u>butane</u>

SECTION 4 First-aid measures

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.
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	Not considered a normal route of entry.

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.

Treat symptomatically.

for irritant gas exposures:

- ▶ the presence of the agent when it is inhaled is evanescent (of short duration) and therefore, cannot be washed away or otherwise removed
- ▶ arterial blood gases are of primary importance to aid in determination of the extent of damage. Never discharge a patient significantly exposed to an irritant gas without obtaining an arterial blood sample.
- ▶ supportive measures include suctioning (intubation may be required), volume cycle ventilator support (positive and expiratory pressure (PEEP), steroids and antibiotics, after a culture is taken
- ▶ If the eyes are involved, an ophthalmologic consultation is recommended

Occupational Medicine: Third Edition; Zenz, Dickerson, Horvath 1994 Pub: Mosby

For acute or short term repeated exposures to ammonia and its solutions:

- ▶ Mild to moderate inhalation exposures produce headache, cough, bronchospasm, nausea, vomiting, pharyngeal and retrosternal pain and conjunctivitis. Severe inhalation produces laryngospasm, signs of upper airway obstruction (stridor, hoarseness, difficulty in speaking) and, in excessively, high doses, pulmonary oedema.
- ▶ Warm humidified air may soothe bronchial irritation.
- ▶ Test all patients with conjunctival irritation for corneal abrasion (fluorescein stain, slit lamp exam)
- ▶ Dyspneic patients should receive a chest X-ray and arterial blood gases to detect pulmonary oedema.

SECTION 5 Fire-fighting measures

Extinguishing media

SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

LARGE FIRE:

- ▶ Water spray or fog.

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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Special protective equipment and precautions for fire-fighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ If safe, switch off electrical equipment until vapour fire hazard removed. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ DO NOT approach containers suspected to be hot.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat or flame. ▶ Vapour forms an explosive mixture with air. ▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition with violent container rupture. ▶ Aerosol cans may explode on exposure to naked flames. <p>Combustion products include:</p> <ul style="list-style-type: none"> ▶ carbon dioxide (CO2) ▶ other pyrolysis products typical of burning organic material. <p>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p>

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Recochem Shell Tyre Repair (Aerosol)

See section 8

Environmental precautions

See section 12

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. ▶ Shut off all possible sources of ignition and increase ventilation. ▶ Wipe up. ▶ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. ▶ Undamaged cans should be gathered and stowed safely.
Major Spills	<ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water courses ▶ No smoking, naked lights or ignition sources. ▶ Increase ventilation. ▶ Stop leak if safe to do so.

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

SECTION 7 Handling and storage**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▶ Avoid skin contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights or ignition sources. ▶ Avoid contact with incompatible materials.
Other information	<ul style="list-style-type: none"> ▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can ▶ Store in original containers in approved flammable liquid storage area. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ No smoking, naked lights, heat or ignition sources. ▶ Keep containers securely sealed. Contents under pressure. ▶ Store away from incompatible materials. ▶ Store in a cool, dry, well ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Aerosol dispenser. ▶ Check that containers are clearly labelled.
Storage incompatibility	<ul style="list-style-type: none"> ▶ Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances <p>For ammonia:</p> <ul style="list-style-type: none"> ▶ Ammonia forms explosive mixtures with oxygen, chlorine, bromine, fluorine, iodine, mercury, platinum and silver. ▶ Fire and/or explosion may follow contact with acetaldehyde, acrolein, aldehydes, alkylene oxides, amides, antimony, boron, boron halides, bromine chloride, chloric acid, chlorine monoxide, o-chloronitrobenzene, 1-chloro-2,4-nitrobenzene, chlorosilane, chloromelamine, chromium trioxide, chromyl chloride, epichlorohydrin, hexachloromelamine, hypochlorites (do NOT mix ammonia with liquid household bleach), isocyanates, nitrogen tetraoxide, nitrogen trichloride, nitryl chloride, organic anhydrides, phosphorous trioxide, potassium ferricyanide, potassium mercuric cyanide, silver chloride, stibine, tellurium halides, tellurium hydropentachloride, tetramethylammonium amide, trimethylammonium amide, trioxxygen difluoride, vinyl acetate. ▶ Shock-, temperature-, and pressure sensitive compounds are formed with antimony, chlorine, germanium compounds, halogens, heavy metals, hydrocarbons, mercury oxide, silver compounds (azides, chlorides, nitrates, oxides). ▶ Vapours or solutions of ammonia are corrosive to copper, copper alloys, galvanised metal and aluminium. Mixtures of ammonia and air lying within the explosive limits can occur above aqueous solutions of varying strengths. ▶ Avoid contact with sodium hydroxide, iron and cadmium. ▶ Several incidents involving sudden "boiling" (occasionally violent) of a concentrated solution (d, 0.880, 35 wt %) have occurred when screw-capped winchesters are opened. ▶ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection**Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	ethylene glycol	Ethylene glycol - Vapour	100 ppm / 250 mg/m3	325 mg/m3 / 125 ppm	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	ethylene glycol	Ethylene glycol - Particulate	10 mg/m3	20 mg/m3 / 10 ppm	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	ethylene glycol	Ethylene glycol, (as an aerosol)	Not Available	Not Available	100 mg/m3	Not Available
Canada - Manitoba Occupational Exposure Limits	ethylene glycol	Not Available	Not Available	Not Available	100 mg/m3	TLV® Basis: URT & eye irr

Continued...

Recochem Shell Tyre Repair (Aerosol)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Prince Edward Island Occupational Exposure Limits	ethylene glycol	Ethylene glycol (Inhalable particulate matter)	Not Available	10 mg/m3	Not Available	A4
Canada - Prince Edward Island Occupational Exposure Limits	ethylene glycol	Ethylene glycol	25 ppm	50 ppm	Not Available	A4
Canada - British Columbia Occupational Exposure Limits	ethylene glycol	Ethylene glycol - Vapour	Not Available	Not Available	50 ppm	Not Available
Canada - British Columbia Occupational Exposure Limits	ethylene glycol	Ethylene glycol - Particulate	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	ethylene glycol	Ethylene glycol - Aerosol	Not Available	Not Available	100 mg/m3	Not Available
Canada - Alberta Occupational Exposure Limits	ethylene glycol	Ethylene glycol	Not Available	Not Available	100 mg/m3	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	ethylene glycol	Ethylene glycol, (as an aerosol)	Not Available	Not Available	100 mg/m3	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	ethylene glycol	Ethylene glycol (vapour and mist)	Not Available	Not Available	50 ppm / 127 mg/m3	RP: A substance which may not be recirculated
Canada - Nova Scotia Occupational Exposure Limits Canada	ethylene glycol	Ethylene glycol	Not Available	Not Available	100 mg/m3	Value is for the aerosol. TLV Basis: upper respiratory tract & eye irritation
Canada - British Columbia Occupational Exposure Limits (French Canadian)	ethylene glycol	Glycol éthylène – particules	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits (French Canadian)	ethylene glycol	Glycol éthylène – vapeur	Not Available	Not Available	50 ppm	Not Available
Canada - British Columbia Occupational Exposure Limits (French Canadian)	ethylene glycol	Glycol éthylène – aérosol	Not Available	Not Available	100 mg/m3	Not Available
Canada - Alberta Occupational Exposure Limits (French Canadian)	ethylene glycol	Éthylène glycol	Not Available	Not Available	100 mg/m3	3 - La limite d'exposition professionnelle est basée sur les effets d'irritation et son ajustement pour compenser des horaires de travail inhabituels n'est pas requis.
Canada - Manitoba Occupational Exposure Limits (French Canadian)	ethylene glycol	‡ Éthylène glycol	Not Available	Not Available	100 mg/m3	Base TLV® : vasodilatation ; maux de tête
Canada - Nova Scotia Occupational Exposure Limits Canada (French Canadian)	ethylene glycol	Éthylène glycol	Not Available	Not Available	100 mg/m3	Base TLV® : irritation des voies respiratoires supérieures et des yeux
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits (French Canadian)	ethylene glycol	Éthylène glycol (sous forme d'aérosol)	Not Available	Not Available	100 mg/m3	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances (French Canadian)	ethylene glycol	Éthylène glycol - vapeur	100 ppm / 250 mg/m3	325 mg/m3 / 125 ppm	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances (French Canadian)	ethylene glycol	Éthylène glycol - particules	10 mg/m3	20 mg/m3 / 10 ppm	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits (French Canadian)	ethylene glycol	Éthylène glycol	25 ppm	50 ppm	Not Available	A4
Canada - Prince Edward Island Occupational Exposure Limits (French Canadian)	ethylene glycol	Éthylène glycol (matières particulaires inhalables)	Not Available	10 mg/m3	Not Available	A4
Canada - Prince Edward Island Occupational Exposure Limits	sodium benzoate	Benzoic acid and alkali benzoates: Sodium benzoate, as benzoate (Inhalable particulate matter)	2.5 mg/m3	Not Available	Not Available	Skin; A5
Canada - Prince Edward Island Occupational Exposure Limits (French Canadian)	sodium benzoate	Acide benzoïque et benzoates alcalins : benzoate de sodium, en tant que benzoate (matières particulaires inhalables)	2.5 mg/m3	Not Available	Not Available	Peau; A5
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	ammonium hydroxide	Ammonia	25 ppm / 18 mg/m3	30 mg/m3 / 40 ppm	Not Available	Not Available


Recochem Shell Tyre Repair (Aerosol)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances (French Canadian)	ammonium hydroxide	Ammoniac	25 ppm / 18 mg/m3	30 mg/m3 / 40 ppm	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	propane	Propane	Not Available	Not Available	Not Available	(See Table 12)
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	propane	Propane	Not Available	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	propane	Not Available	Not Available	Not Available	Not Available	TLV® Basis: Asphyxia; See Appendix F: Minimal Oxygen Content
Canada - Prince Edward Island Occupational Exposure Limits	propane	Propane	Not Available	Not Available	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	propane	Aliphatic hydrocarbon gases [C1-C4]	1000 ppm	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	propane	Propane	1000 ppm	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	propane	Aliphatic hydrocarbon gases, Alkane [C1-C4]	1000 ppm	1250 ppm	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	propane	Propane	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits Canada	propane	Propane	1000 ppm	Not Available	Not Available	TLV Basis: cardiac sensitization; central nervous system impairment
Canada - British Columbia Occupational Exposure Limits (French Canadian)	propane	Gaz d'hydrocarbures aliphatiques [C1-C4]	1000 ppm	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits (French Canadian)	propane	Propane	1000 ppm	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits (French Canadian)	propane	Propane	Not Available	Not Available	Not Available	Base TLV® : asphyxie ; voir Annexe F : teneur minimale en oxygène
Canada - Nova Scotia Occupational Exposure Limits Canada (French Canadian)	propane	Propane	1000 ppm	Not Available	Not Available	Base TLV® : sensibilisation cardiaque ; atteinte du système nerveux central
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits (French Canadian)	propane	Propane	Not Available	Not Available	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances (French Canadian)	propane	Propane	Not Available	Not Available	Not Available	(Voir le tableau 12)
Canada - Prince Edward Island Occupational Exposure Limits (French Canadian)	propane	Propane	Not Available	Not Available	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	butane	Butane	600 ppm / 1,400 mg/m3	1,600 mg/m3 / 750 ppm	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	butane	Aliphatic hydrocarbon gases, Alkane [C1-C4]	1000 ppm	1250 ppm	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	butane	Butane, All isomers	Not Available	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	butane	Not Available	Not Available	1000 ppm	Not Available	TLV® Basis: CNS impair
Canada - Prince Edward Island Occupational Exposure Limits	butane	Butane, isomers	Not Available	1000 ppm	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	butane	n-Butane	600 ppm	750 ppm	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	butane	Butane	1000 ppm	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	butane	Aliphatic hydrocarbon gases, Alkane [C1-C4]	1000 ppm	1250 ppm	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	butane	Butane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits Canada	butane	Butane - All isomers	1000 ppm	Not Available	Not Available	See Aliphatic hydrocarbon gases

Recochem Shell Tyre Repair (Aerosol)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Nova Scotia Occupational Exposure Limits Canada	butane	Butane	1000 ppm	Not Available	Not Available	See Aliphatic hydrocarbon gases
Canada - Nova Scotia Occupational Exposure Limits Canada	butane	Aliphatic hydrocarbon gases - Alkane [C1-C4]	1000 ppm	Not Available	Not Available	TLV Basis: Cardiac sensitization; CNS impairment
Canada - British Columbia Occupational Exposure Limits (French Canadian)	butane	n-Butane	600 ppm	750 ppm	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits (French Canadian)	butane	Butane	1000 ppm	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits (French Canadian)	butane	Butane, tous les isomères	Not Available	1000 ppm	Not Available	Base TLV® : atteinte du SNC
Canada - Nova Scotia Occupational Exposure Limits Canada (French Canadian)	butane	Gaz hydrocarbures aliphatiques - Alcane [C1-C4]	1000 ppm	Not Available	Not Available	Base TLV® : sensibilisation cardiaque ; atteinte du système nerveux central
Canada - Nova Scotia Occupational Exposure Limits Canada (French Canadian)	butane	Butane - Tous les isomères	1000 ppm	Not Available	Not Available	Voir gaz hydrocarbures aliphatiques
Canada - Nova Scotia Occupational Exposure Limits Canada (French Canadian)	butane	Butane	1000 ppm	Not Available	Not Available	Voir gaz hydrocarbures aliphatiques
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits (French Canadian)	butane	Butane, tous isomères	Not Available	Not Available	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits (French Canadian)	butane	Gaz hydrocarbures aliphatiques, alcane [C1-C4]	1000 ppm	1250 ppm	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances (French Canadian)	butane	Butane	600 ppm / 1,400 mg/m3	1,600 mg/m3 / 750 ppm	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits (French Canadian)	butane	Butane, isomères	Not Available	1000 ppm	Not Available	Not Available

Exposure controls

Appropriate engineering controls	<p>CARE: Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred. 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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p>
Individual protection measures, such as personal protective equipment	
Eye and face protection	<ul style="list-style-type: none"> ▶ No special equipment for minor exposure i.e. when handling small quantities. ▶ OTHERWISE: For potentially moderate or heavy exposures: <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"> ▶ Elbow length PVC gloves <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
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. ▶ Eyewash unit. ▶ Do not spray on hot surfaces.

Respiratory protection

Type KAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

SECTION 9 Physical and chemical properties**Information on basic physical and chemical properties**

Appearance/Colour	Odourless off white aerosol liquid with solid; does not mix with water.		
Physical state	Compressed Gas	Relative density (Water = 1)	1.05
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
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 (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available
Particle Characteristics	Not Available		

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Elevated temperatures. ▶ Presence of open flame. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information**Information on toxicological effects**

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	There is sufficient evidence to classify this material as skin corrosive or irritating.
c) Serious Eye Damage/Irritation	There is sufficient evidence to classify this material as eye damaging or irritating
d) Respiratory or Skin sensitisation	There is sufficient evidence to classify this material as sensitising to skin or the respiratory system
e) Mutagenicity	There is sufficient evidence to classify this material as mutagenic
f) Carcinogenicity	There is sufficient evidence to classify this material as carcinogenic
g) Reproductivity	There is sufficient evidence to classify this material as toxic to reproductivity
h) STOT - Single Exposure	Based on available data, the classification criteria are not met.
i) STOT - Repeated Exposure	There is sufficient evidence to classify this material as toxic to specific organs through repeated exposure
j) Aspiration Hazard	Based on available data, the classification criteria are not met.

Inhaled	<p>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>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may produce severely damaging effects to the health of the individual. Relatively small amounts absorbed from the lungs may prove fatal.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</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>The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions. Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.</p>
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Continued...

Recochem Shell Tyre Repair (Aerosol)

	<p>Inhalation of high concentrations of vapour may cause breathing difficulty, tightness in chest, pulmonary oedema and lung damage. Brief exposure to high concentrations > 5000 ppm may cause death due to asphyxiation (suffocation) or fluid in the lungs.</p> <p>Prolonged or regular minor exposure to the vapour may cause persistent irritation of the eyes, nose and upper respiratory tract. Massive ammonia exposures may produce chronic airway hyperactivity and asthma with associated pulmonary function changes. The average nasal retention of ammonia by human subjects was found to be 83%.</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>
Ingestion	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Vinyl esters, when ingested, can cause damage to the brain and spinal cord, resulting in muscular weakness and loss of sensation in the limbs.</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>Large doses of ammonia or injected ammonium salts may produce diarrhoea and may be sufficiently absorbed to produce increased production of urine and systemic poisoning. Symptoms include weakening of facial muscle, tremor, anxiety, reduced muscle and limb control.</p>
Skin Contact	<p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin contact with the material may produce severe damage to the health of the individual; systemic effects may result following absorption and these may be fatal.</p> <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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> <p>Mild skin reaction is seen with contact of the vapour of this material on moist skin. High concentrations or direct contact with solutions produces severe pain, a stinging sensation, burns and blisters and possible brown stains. Death could result from extensive burning. Vapour exposure may rarely, produce an itchy rash.</p>
Eye	<p>This material causes serious eye irritation.</p> <p>Not considered to be a risk because of the extreme volatility of the gas.</p>
Chronic	<p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material.</p> <p>Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material.</p> <p>Exposure to vinyl esters for extended periods of time can cause nervous system damage, developmental defects and cancer. Foetal malformations and deaths can occur at concentrations below which the mother is affected; at higher levels, there is an increased risk of miscarriage.</p> <p>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.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.</p> <p>Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper airway. Repeated exposure or prolonged contact may produce skin inflammation and conjunctivitis. Other effects may include ulcers in the mouth and disturbances to the bronchi and gastrointestinal tract. In animals, repeated exposure to sublethal levels produces adverse effects on the airways, liver, kidneys and spleen, as well as eye irritation and clouding of the cornea.</p>

Recochem Shell Tyre Repair (Aerosol)	TOXICITY	IRRITATION
	Not Available	Not Available
ethylene glycol	TOXICITY	IRRITATION
	dermal (mouse) LD50: >3500 mg/kg ^[1]	Eye (Rodent - rabbit): 0.012ppm/3D
	Oral (Rat) LD50: >2000 mg/kg ^[2]	Eye (Rodent - rabbit): 100mg/1H - Mild
		Eye (Rodent - rabbit): 1440mg/6H - Moderate
		Eye (Rodent - rabbit): 500mg/24H - Mild
		Eye (Rodent - rat): 0.012%/3D
		Eye: no adverse effect observed (not irritating) ^[1]
	Skin (Rodent - rabbit): 555mg - Mild	
	Skin: no adverse effect observed (not irritating) ^[1]	
vinyl acetate homopolymer	TOXICITY	IRRITATION
	Oral (Rat) LD50: >25000 mg/kg ^[2]	Not Available
sodium benzoate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
	Inhalation (Rat) LC50: >12.2 mg/L4h ^[1]	Skin (Human): 0.5%/20M
	Oral (Rat) LD50: 4070 mg/kg ^[2]	Skin (Human): 10%/1H
		Skin: no adverse effect observed (not irritating) ^[1]
ammonium hydroxide	TOXICITY	IRRITATION
	Inhalation (Rat) LC50: 2000 ppm4h ^[2]	Eye (Rodent - rabbit): 1mg/30S - Severe
	Oral (Rat) LD50: 350 mg/kg ^[2]	Eye (Rodent - rabbit): 250ug - Severe
		Eye (Rodent - rabbit): 44ug - Severe

Recochem Shell Tyre Repair (Aerosol)

water	TOXICITY	IRRITATION
	Oral (Rat) LD50: >90000 mg/kg ^[2]	Not Available
propane	TOXICITY	IRRITATION
	Inhalation (Rat) LC50: 364726.819 ppm4h ^[2]	Not Available
butane	TOXICITY	IRRITATION
	Inhalation (Rat) LC50: 658 mg/l4h ^[2]	Eye: no adverse effect observed (not irritating) ^[1] 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

ETHYLENE GLYCOL	[Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance is reproductive effector in rats (birth defects). Mutagenic to rat cells. For ethylene glycol: Ethylene glycol is quickly and extensively absorbed throughout the gastrointestinal tract. Limited information suggests that it is also absorbed through the airways; absorption through skin is apparently slow. Following absorption, it is distributed throughout the body. In humans, it is initially metabolized by alcohol dehydrogenase to form glycoaldehyde, which is rapidly converted to glycolic acid and glyoxal. These breakdown products are oxidized to glyoxylate, which may be further metabolized to formic acid, oxalic acid, and glycine. Breakdown of both glycine and formic acid can generate carbon dioxide, which is one of the major elimination products of ethylene glycol. In addition to exhaled carbon dioxide, ethylene glycol is eliminated in the urine as both the parent compound and glycolic acid.
VINYL ACETATE HOMOPOLYMER	Ames Test (with and without metabolic activation): negative Genotoxic effects, cells of mammals, in vitro (without metabolic activation): negative WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SODIUM BENZOATE	NOTE: Oral doses of 8-10g may cause nausea and vomiting, though tolerance in human is 50 g/day. Use in food limited to 0.1%. [IC1] The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. For benzoates: Benzyl alcohol, benzoic acid and its sodium and potassium salt have a common metabolic and excretion pathway. All but benzyl alcohol are considered to be unharmed and of low acute toxicity. They may cause slight irritation by oral, dermal or inhalation exposure except sodium benzoate which doesn't irritate the skin. Studies showed increased mortality, reduced weight gain, liver and kidney effects at higher doses, also, lesions of the brains, thymus and skeletal muscles may occur with benzyl alcohol. However, they do not cause cancer, genetic or reproductive toxicity. Developmental toxicity may occur but only at maternal toxic level.
AMMONIUM HYDROXIDE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.
WATER & PROPANE	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✓
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✓
Mutagenicity	✓	Aspiration Hazard	✗

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

SECTION 12 Ecological information

Toxicity

Recochem Shell Tyre Repair (Aerosol)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Recochem Shell Tyre Repair (Aerosol)

	Endpoint	Test Duration (hr)	Species	Value	Source
	ethylene glycol	EC50	48h	Crustacea	>100mg/l
EC50(ECx)		Not Available	Algae or other aquatic plants	6500-7500mg/l	1
EC50		96h	Algae or other aquatic plants	6500-13000mg/l	1
LC50		96h	Fish	8050mg/L	4
vinyl acetate homopolymer	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
sodium benzoate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>30.5mg/l	2
	EC50	48h	Crustacea	<650mg/l	1
	NOEC(ECx)	72h	Algae or other aquatic plants	0.09mg/l	2
ammonium hydroxide	LC50	96h	Fish	>100mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
water	EC50(ECx)	96h	Crustacea	0.83mg/L	5
	LC50	96h	Fish	33.3mg/L	4
propane	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
butane	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
Legend:	LC50	96h	Fish	24.11mg/l	2
	<i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data</i>				

Harmful to aquatic organisms.

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.

As noted previously, the solubility and vapour pressure of components within a mixture will differ from those of the component alone. These interactions are complex for complex UVCBs such as petroleum hydrocarbons.

Each of the fate processes affects hydrocarbon families differently. Aromatics tend to be more water-soluble than aliphatics of the same carbon number, whereas aliphatics tend to be more volatile.

For Ammonia:

Atmospheric Fate: Ammonia reacts rapidly with available acids (mainly sulfuric, nitric, and sometimes hydrochloric acid) to form the corresponding salts. Ammonia is persistent in the air.

Aquatic Fate: Biodegrades rapidly to nitrate, producing a high oxygen demand. Non-persistent in water (half-life 2 days).

Ecotoxicity: Moderately toxic to fish under normal temperature and pH conditions and harmful to aquatic life at low concentrations. Does not concentrate in food chain.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethylene glycol	LOW (Half-life = 24 days)	LOW (Half-life = 3.46 days)
vinyl acetate homopolymer	LOW	LOW
water	LOW	LOW
propane	LOW	LOW
butane	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
ethylene glycol	LOW (BCF = 200)
vinyl acetate homopolymer	LOW (LogKOW = 0.7278)
ammonium hydroxide	LOW (LogKOW = -2.66)
water	LOW (LogKOW = -1.38)
propane	LOW (LogKOW = 2.36)
butane	LOW (LogKOW = 2.89)

Mobility in soil

Continued...

Ingredient	Mobility
ethylene glycol	HIGH (Log KOC = 1)
vinyl acetate homopolymer	LOW (Log KOC = 6.131)
propane	LOW (Log KOC = 23.74)
butane	LOW (Log KOC = 43.79)


SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Consult State Land Waste Management Authority for disposal. ▶ Discharge contents of damaged aerosol cans at an approved site. ▶ Allow small quantities to evaporate. ▶ DO NOT incinerate or puncture aerosol cans. ▶ Bury residues and emptied aerosol cans at an approved site.
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SECTION 14 Transport information

Labels Required

	
Marine Pollutant	NO

Land transport (TDG)

14.1. UN number or ID number	1950						
14.2. UN proper shipping name	AEROSOLS, FLAMMABLE						
14.3. Transport hazard class(es)	<table border="1"> <tr> <td>Class</td> <td>2.1</td> </tr> <tr> <td>Subsidiary Hazard</td> <td>Not Applicable</td> </tr> </table>	Class	2.1	Subsidiary Hazard	Not Applicable		
Class	2.1						
Subsidiary Hazard	Not Applicable						
14.4. Packing group	Not Applicable						
14.5. Environmental hazard	Not Applicable						
14.6. Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>80, 107</td> </tr> <tr> <td>Explosive Limit and Limited Quantity Index</td> <td>1 L</td> </tr> <tr> <td>ERAP Index</td> <td>Not Applicable</td> </tr> </table>	Special provisions	80, 107	Explosive Limit and Limited Quantity Index	1 L	ERAP Index	Not Applicable
Special provisions	80, 107						
Explosive Limit and Limited Quantity Index	1 L						
ERAP Index	Not Applicable						

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950														
14.2. UN proper shipping name	Aerosols, flammable (engine starting fluid)														
14.3. Transport hazard class(es)	<table border="1"> <tr> <td>ICAO/IATA Class</td> <td>2.1</td> </tr> <tr> <td>ICAO / IATA Subsidiary Hazard</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>10L</td> </tr> </table>	ICAO/IATA Class	2.1	ICAO / IATA Subsidiary Hazard	Not Applicable	ERG Code	10L								
ICAO/IATA Class	2.1														
ICAO / IATA Subsidiary Hazard	Not Applicable														
ERG Code	10L														
14.4. Packing group	Not Applicable														
14.5. Environmental hazard	Not Applicable														
14.6. Special precautions for user	<table border="1"> <tr> <td>Special provisions</td> <td>A1 A145 A167 A802</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>203</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>150 kg</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>Forbidden</td> </tr> </table>	Special provisions	A1 A145 A167 A802	Cargo Only Packing Instructions	203	Cargo Only Maximum Qty / Pack	150 kg	Passenger and Cargo Packing Instructions	Forbidden	Passenger and Cargo Maximum Qty / Pack	Forbidden	Passenger and Cargo Limited Quantity Packing Instructions	Forbidden	Passenger and Cargo Limited Maximum Qty / Pack	Forbidden
Special provisions	A1 A145 A167 A802														
Cargo Only Packing Instructions	203														
Cargo Only Maximum Qty / Pack	150 kg														
Passenger and Cargo Packing Instructions	Forbidden														
Passenger and Cargo Maximum Qty / Pack	Forbidden														
Passenger and Cargo Limited Quantity Packing Instructions	Forbidden														
Passenger and Cargo Limited Maximum Qty / Pack	Forbidden														

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1950		
14.2. UN proper shipping name	AEROSOLS		
14.3. Transport hazard class(es)	<table border="1"> <tr> <td>IMDG Class</td> <td>2.1</td> </tr> </table>	IMDG Class	2.1
IMDG Class	2.1		

	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	Not Applicable	
14.5 Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	F-D, S-U
	Special provisions	63 190 277 327 344 381 959
	Limited Quantities	1000 ml

14.7. Maritime transport in bulk according to IMO instruments**14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

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

Product name	Group
ethylene glycol	Not Applicable
vinyl acetate homopolymer	Not Applicable
sodium benzoate	Not Applicable
ammonium hydroxide	Not Applicable
water	Not Applicable
propane	Not Applicable
butane	Not Applicable

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
ethylene glycol	Not Applicable
vinyl acetate homopolymer	Not Applicable
sodium benzoate	Not Applicable
ammonium hydroxide	Not Applicable
water	Not Applicable
propane	Not Applicable
butane	Not Applicable

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

ethylene glycol is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
 Chemical Footprint Project - Chemicals of High Concern List

vinyl acetate homopolymer is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

sodium benzoate is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

ammonium hydroxide is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

water is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

propane is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)
 Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

butane is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
 Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
Chemical Footprint Project - Chemicals of High Concern List

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (ethylene glycol; vinyl acetate homopolymer; sodium benzoate; ammonium hydroxide; water; propane; butane)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (vinyl acetate homopolymer)
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
UAE - Control List (Banned/Restricted Substances)	No (ethylene glycol; vinyl acetate homopolymer; sodium benzoate; ammonium hydroxide; water; propane; butane)
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	06/05/2026
Initial Date	17/12/2019

SDS Version Summary

Version	Date of Update	Sections Updated
4.1	30/12/2020	Classification change due to full database hazard calculation/update.
5.1	10/03/2023	Classification change due to full database hazard calculation/update., Hazards identification - Classification, Identification of the substance / mixture and of the company / undertaking - Supplier Information

Other information

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

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

Definitions and abbreviations

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

- ▶ 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

Recochem Shell Tyre Repair (Aerosol)

- ▶ 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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