

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

1.1. Product identifier

Trade name or designation of the mixture LPS® F-104 (Aerosol)

Registration number -

Synonyms None.

Part Number 04920, M04920

Issue date 03-October-2017

Version number 01

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

Identified uses A solvent degreasing agent designed for removing tar, adhesives, grease, oil and other residues from metal and other hard surfaces.

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier Alsco Ltd

Company name Unite 13 Hillmead Industrial Estate

Address Marshall Road
Swindon, Wiltshire
United Kingdom SN5 5FZ

Telephone +44 1793 733 900

In Case of Emergency +001 703-527-3887

Manufacturer

Company name Rocol

Address Rocol House
Swillington
Leeds LS26 8BS
United Kingdom

Tel: +44 (0) 113 232 2700

Fax: +44 (0) 113 232 2740

e-mail customer-service@rocol.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification F+;R12, R43-67, N;R51/53

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Aerosols	Category 1	H222 - Extremely flammable aerosol. H229 - Pressurized container: May burst if heated.
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Health hazards

Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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Hazard summary

Physical hazards	Extremely flammable.
Health hazards	May cause sensitisation by skin contact. Vapours may cause drowsiness and dizziness.
Environmental hazards	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards	None known.
Main symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause an allergic skin reaction. Dermatitis. Rash.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 1-Propoxy-2-Propanol, Carbon dioxide, d-limonene, Hydrocarbons, C9-C11, N-Alkanes, Cyclics, < 2% Aromatics, Propylene glycol monomethyl ether acetate

Hazard pictograms



Signal word

Danger

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

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.
P261	Avoid breathing gas.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

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

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Hydrocarbons, C9-C11, N-Alkanes, Cyclics, < 2% Aromatics	70 - 80	- 919-857-5	01-2119463258-33-XXXX	-	
Classification:	DSD: - CLP: Flam. Liq. 3;H226, Asp. Tox. 1;H304, STOT SE 3;H336				

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
1-Propoxy-2-Propanol	5 - 10	1569-01-3 216-372-4	01-2119474443-37-XXXX	-	
Classification:	DSD: - CLP: Flam. Liq. 3;H226, Eye Irrit. 2;H319				
Propylene glycol monomethyl ether acetate	1 - 10	108-65-6 203-603-9	-	607-195-00-7	#
Classification:	DSD: R10 CLP: Flam. Liq. 3;H226				
Carbon dioxide	1 - 5	124-38-9 204-696-9	-	-	#
Classification:	DSD: - CLP: -				
d-limonene	1 - 5	5989-27-5 227-813-5	-	601-029-00-7	
Classification:	DSD: R10, Xn;R65, Xi;R38, R43, N;R50/53 CLP: Flam. Liq. 3;H226, Skin Irrit. 2;H315, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				C C

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause an allergic skin reaction. Dermatitis. Rash.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Extremely flammable aerosol.

5.1. Extinguishing media

Suitable extinguishing media Alcohol resistant foam. Powder. Dry chemicals. Carbon dioxide (CO₂).

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

5.2. Special hazards arising from the substance or mixture Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire fighting procedures

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Prevent product from entering drains. Scoop up used absorbent into drums or other appropriate container. Following product recovery, flush area with water.

6.4. Reference to other sections

Use personal protection recommended in Section 8 of the SDS. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	Ceiling	18000 mg/m ³
	MAK	10000 ppm 9000 mg/m ³ 5000 ppm
	Ceiling	550 mg/m ³
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	MAK	100 ppm 275 mg/m ³ 50 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54784 mg/m ³
	TWA	30000 ppm 9131 mg/m ³ 5000 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm
		275 mg/m3
		50 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm
		550 mg/m3
	TWA	100 ppm
		275 mg/m3
		50 ppm

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	MAC	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	MAC	5000 ppm
		275 mg/m3
	STEL	50 ppm
		550 mg/m3
		100 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	Ceiling	45000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TWA	9000 mg/m3
	Ceiling	550 mg/m3
	TWA	270 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TLV	5000 ppm
		275 mg/m3
		50 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm
		550 mg/m3
	TWA	100 ppm
		275 mg/m3
		50 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
d-limonene (CAS 5989-27-5)	STEL	5000 ppm 280 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TWA	50 ppm 140 mg/m3
	STEL	25 ppm 550 mg/m3
	TWA	100 ppm 270 mg/m3 50 ppm

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	VLE	5000 ppm 550 mg/m3
	VME	110 ppm 275 mg/m3 50 ppm

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
d-limonene (CAS 5989-27-5)	TWA	5000 ppm 28 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TWA	5 ppm 270 mg/m3
		50 ppm

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	AGW	9100 mg/m3
d-limonene (CAS 5989-27-5)	AGW	5000 ppm 28 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	AGW	5 ppm 270 mg/m3
		50 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	5000 ppm 9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	275 mg/m3

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	15000 ppm 9000 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 400 mg/m3
	TWA	75 ppm 250 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
		50 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Netherlands. OELs (binding)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TWA	550 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
d-limonene (CAS 5989-27-5)	TLV	5000 ppm 140 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TLV	25 ppm 270 mg/m3
		50 ppm

Poland. MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	520 mg/m3
	TWA	260 mg/m3

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3

Components	Type	Value
	TWA	100 ppm 275 mg/m3 50 ppm

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	TWA	275 mg/m3 50 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	18000 mg/m3 10000 ppm
	TWA	9000 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	Ceiling	550 mg/m3

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
	TWA	100 ppm 275 mg/m3 50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
d-limonene (CAS 5989-27-5)	STEL	5000 ppm 80 mg/m3
	TWA	14 ppm 40 mg/m3 7 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	275 mg/m3
	TWA	50 ppm 275 mg/m3 50 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m3
	TWA	15000 ppm 9150 mg/m3 5000 ppm
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	548 mg/m3
	TWA	100 ppm 274 mg/m3 50 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Propylene glycol monomethyl ether acetate (CAS 108-65-6)	STEL	5000 ppm 550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

EU Exposure Limit Values: Skin designation

Propylene glycol monomethyl ether acetate (CAS 108-65-6) Can be absorbed through the skin.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Propylene glycol monomethyl ether acetate (CAS 108-65-6) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
General information	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.
Skin protection	
- Hand protection	Wear appropriate chemical resistant gloves.
- Other	Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
Environmental exposure controls	Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Gas.
Form	Aerosol
Colour	Clear water-white.
Odour	Mild. Orange.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	< 23,0 °C (< 73,4 °F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.

Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Non-viscous.

Explosive properties Not explosive.

Oxidising properties Not oxidising.

9.2. Other information No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	Carbon oxides.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)	
Not listed.	
IARC Monographs. Overall Evaluation of Carcinogenicity	
d-limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not likely, due to the form of the product.
Mixture versus substance information	No information available.
Other information	None known.

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects. Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard.

Components		Species	Test results
d-limonene (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69,6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

1-Propoxy-2-Propanol	0,621
d-limonene	4,232

Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Hazard No. (ADR)	Not available.
Tunnel restriction code	D
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN1950
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14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
ERG Code	10L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

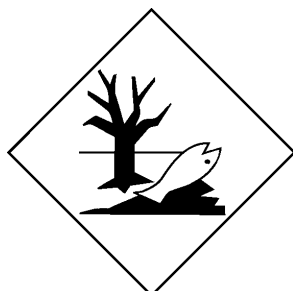
14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable, MARINE POLLUTANT
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-D, S-U
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
D-LIMONENE	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



General information IMDG Regulated Marine Pollutant.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.
Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
d-limonene (CAS 5989-27-5)
Propylene glycol monomethyl ether acetate (CAS 108-65-6)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. Additional information is given in the Safety Data Sheet.

National regulations

Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R10 Flammable.
R12 Extremely flammable.
R38 Irritating to skin.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

Rocol cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.