

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

1.1. Product identifier

Trade name or designation of the mixture	LPS® ZeroTri® (Aerosol)
Registration number	-
Synonyms	None.
Part Number	03520, M03520
Issue date	04-October-2017
Version number	01

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

Identified uses	An industrial degreaser designed to remove oil, grease, wax, moisture, dirt or other contaminants from parts and equipments.
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	lpssds@itwprobrands.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, Xi;R36/38, R67, 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 corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
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	Irritating to eyes and skin. 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. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

2.2. Label elements

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

Contains: 2-Methyl Butyl Acetate, Acetone, Carbon dioxide, Cyclohexylmethane, Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics

Hazard pictograms



Signal word

Danger

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

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.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye protection/face protection.
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.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTRE/doctor if you feel unwell.
P312	If skin irritation occurs: Get medical advice/attention.
P332 + P313	If eye irritation persists: Get medical advice/attention.
P337 + P313	Take off contaminated clothing and wash it before reuse.
P362 + P364	Collect spillage.
P391	

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
Acetone	30- 40	67-64-1 200-662-2	-	606-001-00-8	#
Classification:	DSD: F;R11, Xi;R36, R66-67 CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336				
Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics	30 - 40	64742-49-0 927-510-4	01-21194755-33-XXXX	649-328-00-1	P P
Classification:	DSD: Carc. Cat. 2;R45, Muta. Cat. 2;R46, Xn;R65 CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411				
Cyclohexylmethane	20 - 30	108-87-2 203-624-3	-	601-018-00-7	
Classification:	DSD: F;R11, Xn;R65, Xi;R38, R67, N;R51/53 CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411				
Carbon dioxide	1 - 5	124-38-9 204-696-9	-	-	#
Classification:	DSD: - CLP: -				
2-Methyl Butyl Acetate	1 - 3	624-41-9 210-843-8	-	607-130-00-2	C C
Classification:	DSD: R10, R66 CLP: Flam. Liq. 3;H226				
Amyl Acetate	1 - 3	628-63-7 211-047-3	-	607-130-00-2	#
Classification:	DSD: R10, R66 CLP: Flam. Liq. 3;H226				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.

Note P: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7).

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.

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 Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion In the unlikely event of swallowing contact a physician or poison control centre. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

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. Carbon dioxide (CO ₂).
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. Large Spills: Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Scoop up used absorbent into drums or other appropriate container. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
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
2-Methyl Butyl Acetate (CAS 624-41-9)	MAK	270 mg/m3
	STEL	50 ppm 540 mg/m3
Acetone (CAS 67-64-1)	MAK	100 ppm 1200 mg/m3
	STEL	500 ppm 4800 mg/m3
Amyl Acetate (CAS 628-63-7)	MAK	2000 ppm 270 mg/m3
	STEL	50 ppm 540 mg/m3
Carbon dioxide (CAS 124-38-9)	Ceiling	100 ppm 18000 mg/m3
	MAK	10000 ppm 9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	MAK	5000 ppm 1600 mg/m3
	STEL	400 ppm 6400 mg/m3 1600 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	540 mg/m3
	TWA	100 ppm 270 mg/m3
Acetone (CAS 67-64-1)	STEL	50 ppm 2420 mg/m3
	TWA	1000 ppm 1210 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	500 ppm 540 mg/m3
	TWA	100 ppm 270 mg/m3
Carbon dioxide (CAS 124-38-9)	STEL	50 ppm 54784 mg/m3
	TWA	30000 ppm 9131 mg/m3
Cyclohexylmethane (CAS 108-87-2)	TWA	5000 ppm 1633 mg/m3
		400 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1400 mg/m3
	TWA	600 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	100 ppm 270 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	50 ppm 9000 mg/m3
		5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	500 mg/m3

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

Components	Type	Value
Acetone (CAS 67-64-1)	MAC	1210 mg/m3 500 ppm
	STEL	3620 mg/m3 1500 ppm
Amyl Acetate (CAS 628-63-7)	MAC	270 mg/m3 50 ppm
	STEL	540 mg/m3 100 ppm
Carbon dioxide (CAS 124-38-9)	MAC	9000 mg/m3 5000 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	Ceiling	540 mg/m3
	TWA	270 mg/m3
Acetone (CAS 67-64-1)	Ceiling	1500 mg/m3
	TWA	800 mg/m3
Amyl Acetate (CAS 628-63-7)	Ceiling	540 mg/m3
	TWA	270 mg/m3
Carbon dioxide (CAS 124-38-9)	Ceiling	45000 mg/m3
	TWA	9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	Ceiling	2000 mg/m3
	TWA	1500 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	TLV	271 mg/m3 50 ppm
	TLV	600 mg/m3 250 ppm
Amyl Acetate (CAS 628-63-7)	TLV	271 mg/m3 50 ppm
	TLV	9000 mg/m3
Carbon dioxide (CAS 124-38-9)	TLV	5000 ppm 805 mg/m3
	TLV	200 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
	TWA	9000 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	5000 ppm 1600 mg/m3
	TWA	400 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	540 mg/m3
	TWA	100 ppm 270 mg/m3
	TWA	50 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1500 mg/m3 630 ppm
	TWA	1200 mg/m3 500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	100 ppm 270 mg/m3 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
Cyclohexylmethane (CAS 108-87-2)	STEL	5000 ppm 2000 mg/m3
	TWA	500 ppm 1600 mg/m3 400 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	VLE	2420 mg/m3 1000 ppm
	VME	1210 mg/m3 500 ppm
Amyl Acetate (CAS 628-63-7)	VLE	540 mg/m3
	VME	100 ppm 270 mg/m3 50 ppm
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	VME	5000 ppm 1600 mg/m3
		400 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
2-Methyl Butyl Acetate (CAS 624-41-9)	TWA	270 mg/m3
Acetone (CAS 67-64-1)	TWA	50 ppm 1200 mg/m3
		500 ppm
Amyl Acetate (CAS 628-63-7)	TWA	270 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	50 ppm 9100 mg/m3
		5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	810 mg/m3
		200 ppm

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

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	AGW	270 mg/m3
Acetone (CAS 67-64-1)	AGW	50 ppm 1200 mg/m3
		500 ppm
Amyl Acetate (CAS 628-63-7)	AGW	270 mg/m3
Carbon dioxide (CAS 124-38-9)	AGW	50 ppm 9100 mg/m3

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

Components	Type	Value
Cyclohexylmethane (CAS 108-87-2)	AGW	5000 ppm
		810 mg/m3
		200 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	3560 mg/m3
	TWA	1780 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	800 mg/m3
	TWA	150 ppm 530 mg/m3
Carbon dioxide (CAS 124-38-9)	STEL	100 ppm 54000 mg/m3
	TWA	5000 ppm 9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	STEL	5000 ppm 2000 mg/m3
	TWA	500 ppm 2000 mg/m3 500 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m3
	TWA	1210 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	270 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3

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

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	540 mg/m3
	TWA	100 ppm 266 mg/m3 50 ppm
Acetone (CAS 67-64-1)	TWA	600 mg/m3 250 ppm
	STEL	540 mg/m3
Amyl Acetate (CAS 628-63-7)	TWA	100 ppm 266 mg/m3 50 ppm
	TWA	9000 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	5000 ppm 805 mg/m3
	TWA	200 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
	STEL	540 mg/m3
Amyl Acetate (CAS 628-63-7)	TWA	100 ppm 270 mg/m3 50 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m ³
	TWA	15000 ppm 9000 mg/m ³ 5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	1600 mg/m ³
		400 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	100 ppm
	TWA	50 ppm
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
	STEL	540 mg/m ³
Amyl Acetate (CAS 628-63-7)	TWA	100 ppm 270 mg/m ³ 50 ppm
	TWA	9000 mg/m ³
Cyclohexylmethane (CAS 108-87-2)	TWA	5000 ppm 400 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
	STEL	540 mg/m ³
Amyl Acetate (CAS 628-63-7)	TWA	100 ppm 270 mg/m ³ 50 ppm
	TWA	9000 mg/m ³
Carbon dioxide (CAS 124-38-9)		5000 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m ³ 1000 ppm
	TWA	1210 mg/m ³ 500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m ³
	TWA	100 ppm 270 mg/m ³ 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m ³
		5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	50 mg/m ³

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
	STEL	540 mg/m ³
Amyl Acetate (CAS 628-63-7)	TWA	100 ppm 270 mg/m ³ 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
		5000 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
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	100 ppm 270 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	50 ppm 9000 mg/m3
		5000 ppm

Netherlands. OELs (binding)

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	530 mg/m3
Acetone (CAS 67-64-1)	STEL	2420 mg/m3
	TWA	1210 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	530 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Acetone (CAS 67-64-1)	TLV	295 mg/m3 125 ppm
		260 mg/m3
Amyl Acetate (CAS 628-63-7)	TLV	50 ppm
		9000 mg/m3
Carbon dioxide (CAS 124-38-9)	TLV	5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TLV	800 mg/m3
		200 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1800 mg/m3
	TWA	600 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	500 mg/m3
	TWA	250 mg/m3
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	STEL	3000 mg/m3
	TWA	1600 mg/m3

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
		540 mg/m3
Amyl Acetate (CAS 628-63-7)	STEL	100 ppm
	TWA	270 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	50 ppm
		9000 mg/m3
		5000 ppm

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

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	100 ppm
Acetone (CAS 67-64-1)	TWA	50 ppm
	STEL	750 ppm
Amyl Acetate (CAS 628-63-7)	TWA	500 ppm
	STEL	100 ppm
Carbon dioxide (CAS 124-38-9)	TWA	50 ppm
	STEL	30000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	5000 ppm
	TWA	400 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	100 ppm
Carbon dioxide (CAS 124-38-9)	TWA	270 mg/m3
		50 ppm
		9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	STEL	5000 ppm
	TWA	1500 mg/m3
		375 ppm
		1200 mg/m3
		211 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m3
	TWA	100 ppm
Carbon dioxide (CAS 124-38-9)	TWA	270 mg/m3
		50 ppm
		9000 mg/m3
Cyclohexylmethane (CAS 108-87-2)	STEL	5000 ppm
	TWA	1620 mg/m3
		400 ppm
		810 mg/m3
		200 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
2-Methyl Butyl Acetate (CAS 624-41-9)	TWA	270 mg/m3
Acetone (CAS 67-64-1)	TWA	50 ppm
		1210 mg/m3
		500 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
Amyl Acetate (CAS 628-63-7)	TWA	270 mg/m ³ 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m ³ 5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	2000 mg/m ³ 500 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	STEL	540 mg/m ³ 100 ppm
	TWA	270 mg/m ³ 50 ppm
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m ³ 100 ppm
	TWA	270 mg/m ³ 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m ³ 5000 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	1630 mg/m ³ 400 ppm

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

Components	Type	Value
2-Methyl Butyl Acetate (CAS 624-41-9)	Ceiling	540 mg/m ³ 100 ppm
	TWA	270 mg/m ³ 50 ppm
Acetone (CAS 67-64-1)	STEL	1200 mg/m ³ 500 ppm
	TWA	600 mg/m ³ 250 ppm
Amyl Acetate (CAS 628-63-7)	Ceiling	540 mg/m ³ 100 ppm
	TWA	270 mg/m ³ 50 ppm
Carbon dioxide (CAS 124-38-9)	STEL	18000 mg/m ³ 10000 ppm
	TWA	9000 mg/m ³ 5000 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2400 mg/m ³ 1000 ppm
	TWA	1200 mg/m ³ 500 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m ³ 5000 ppm
Cyclohexylmethane (CAS 108-87-2)	STEL	3200 mg/m ³

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
	TWA	800 ppm 1600 mg/m ³ 400 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	3620 mg/m ³ 1500 ppm
	TWA	1210 mg/m ³ 500 ppm
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m ³
	TWA	15000 ppm 9150 mg/m ³ 5000 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
Amyl Acetate (CAS 628-63-7)	STEL	540 mg/m ³
	TWA	100 ppm 270 mg/m ³ 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m ³ 5000 ppm

Biological limit values**Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)**

Components	Value	Determinant	Specimen	Sampling time
Acetone (CAS 67-64-1)	20 mg/g	Acetone	Creatinine in urine	*
	20 mg/l	Acetone	Blood	*
	0,34 mmol/l	Acetone	Blood	*
	38,95 mmol/mol	Acetone	Creatinine in urine	*

* - For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling time
Acetone (CAS 67-64-1)	100 mg/l	Acétone	Urine	*

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling time
Acetone (CAS 67-64-1)	80 mg/l	Aceton	Urine	*

* - For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Components	Value	Determinant	Specimen	Sampling time
Acetone (CAS 67-64-1)	53,36 mg/g	Acetone	Creatinine in urine	*
	80 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling time
Acetone (CAS 67-64-1)	50 mg/l	Acetona	Urine	*

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling time
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Acetone (CAS 67-64-1)

80 mg/l

Aceton

Urine

*

* - For sampling details, please see the source document.

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

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. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

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

Wear safety glasses with side shields (or goggles).

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.

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. Colourless.

Odour

Characteristic.

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	Not available.
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	Acids. 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	Causes skin irritation.
Eye contact	Causes serious eye 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. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test results
Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 1900 mg/kg, 24 Hours
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	Not a respiratory sensitizer.	
Skin sensitisation	This product is not expected to cause skin sensitisation.	
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.	
ACGIH Carcinogens		
Acetone (CAS 67-64-1)	Not classifiable as a human carcinogen. A4	
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)		
Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics (CAS 64742-49-0)		
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. Due to partial or complete lack of data the classification for hazardous to the aquatic environment, acute hazard, is not possible.

Components	Species	Test results
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Amyl Acetate (CAS 628-63-7)		
Aquatic		
Fish	LC50	Western mosquitofish (Gambusia affinis) 65 mg/l, 96 hours
Cyclohexylmethane (CAS 108-87-2)		
Aquatic		
Fish	LC50	Striped bass (Morone saxatilis) 5,8 mg/l, 96 hours

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Acetone	-0,24
Amyl Acetate	2,3
Cyclohexylmethane	3,61

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
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
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
14.4. Packing group Not available.
14.5. Environmental hazards
Marine pollutant No.
EmS F-D, S-U
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.



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

Acetone (CAS 67-64-1)

Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics (CAS 64742-49-0)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Hydrocarbons, C7, N-Alkanes, Isoalkanes, Cyclics (CAS 64742-49-0)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

2-Methyl Butyl Acetate (CAS 624-41-9)

Acetone (CAS 67-64-1)

Amyl Acetate (CAS 628-63-7)

Cyclohexylmethane (CAS 108-87-2)

Other regulations

Pregnant women should not work with the product, if there is the least risk of exposure. 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.
R11 Highly flammable.
R12 Extremely flammable.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

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.