

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

### 1.1. Product identifier

**Trade name or designation of the mixture** LPS® CFC Free (Aerosol)  
**Registration number** -  
**Synonyms** None.  
**Part Number** M03116  
**Issue date** 18-September-2017  
**Version number** 01

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

**Identified uses** A fast drying industrial cleaning solvent designed to remove soil and other contaminants.  
**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, 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

Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.
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##### 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** Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.

**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.

## 2.2. Label elements

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

**Contains:** Carbon dioxide, Isohexane, Isopropanol

#### Hazard pictograms



**Signal word** Danger

#### Hazard statements

H222 Extremely flammable aerosol.  
H229 Pressurized container: May burst if heated.  
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.  
P273 Avoid release to the environment.

#### Response

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTRE/doctor if you feel unwell.  
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 Eliminate all ignition sources if safe to do so.  
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.

**Supplemental label information** None known.

**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
Isohexane	80 - 90	- 931-254-9	-	-	
<b>Classification:</b>	<b>DSD:</b> -				
	<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, STOT SE 3;H336, Aquatic Chronic 2;H411				
Isopropanol	1 - 10	67-63-0 200-661-7	-	603-117-00-0	
<b>Classification:</b>	<b>DSD:</b> F;R11, Xi;R36, R67				
	<b>CLP:</b> Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336				
Carbon dioxide	1 - 5	124-38-9 204-696-9	-	-	#
<b>Classification:</b>	<b>DSD:</b> -				
	<b>CLP:</b> -				

## 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.

**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** Wash off with soap and water. Get medical attention if irritation develops and persists.

**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.

**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. Water fog. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**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.

**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 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 <sup>3</sup>
		10000 ppm
	MAK	9000 mg/m <sup>3</sup> 5000 ppm
Isopropanol (CAS 67-63-0)	MAK	500 mg/m <sup>3</sup> 200 ppm
	STEL	2000 mg/m <sup>3</sup> 800 ppm

##### Belgium. Exposure Limit Values.

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54784 mg/m <sup>3</sup>
		30000 ppm
	TWA	9131 mg/m <sup>3</sup> 5000 ppm
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m <sup>3</sup> 400 ppm
	TWA	500 mg/m <sup>3</sup> 200 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/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m <sup>3</sup>
	TWA	980 mg/m <sup>3</sup>

##### 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/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	MAC	999 mg/m <sup>3</sup> 400 ppm
	STEL	1250 mg/m <sup>3</sup> 500 ppm

##### Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Isopropanol (CAS 67-63-0)	TWA	980 mg/m <sup>3</sup> 400 ppm

**Czech Republic. OELs. Government Decree 361**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	Ceiling	45000 mg/m <sup>3</sup>
	TWA	9000 mg/m <sup>3</sup>
Isopropanol (CAS 67-63-0)	Ceiling	1000 mg/m <sup>3</sup>
	TWA	500 mg/m <sup>3</sup>

**Denmark. Exposure Limit Values**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	TLV	490 mg/m <sup>3</sup>
		200 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/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	STEL	600 mg/m <sup>3</sup>
		250 ppm
	TWA	350 mg/m <sup>3</sup>
		150 ppm

**Finland. Workplace Exposure Limits**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	STEL	620 mg/m <sup>3</sup>
		250 ppm
	TWA	500 mg/m <sup>3</sup>
		200 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/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	VLE	980 mg/m <sup>3</sup>
		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
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	TWA	500 mg/m <sup>3</sup>
		200 ppm
		200 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/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	AGW	500 mg/m <sup>3</sup>
		200 ppm
		200 ppm

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

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m <sup>3</sup>
		5000 ppm
	TWA	9000 mg/m <sup>3</sup>

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

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		1225 mg/m3
	TWA	500 ppm
		980 mg/m3
		400 ppm

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Isopropanol (CAS 67-63-0)	STEL	2000 mg/m3
	TWA	500 mg/m3

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

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Isopropanol (CAS 67-63-0)	TWA	5000 ppm
		490 mg/m3
		200 ppm

**Ireland. Occupational Exposure Limits**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	15000 ppm
Isopropanol (CAS 67-63-0)	STEL	9000 mg/m3
		5000 ppm
	TWA	400 ppm
		200 ppm

**Italy. Occupational Exposure Limits**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		400 ppm
		200 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
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		600 mg/m3
		350 mg/m3

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

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		600 mg/m3
	TWA	250 ppm
		350 mg/m3
		150 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
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm

**Netherlands. OELs (binding)**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3

**Norway. Administrative Norms for Contaminants in the Workplace**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
		5000 ppm
Isopropanol (CAS 67-63-0)	TLV	245 mg/m3
		100 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
Isopropanol (CAS 67-63-0)	STEL	1200 mg/m3
	TWA	900 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
		5000 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
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 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
Isopropanol (CAS 67-63-0)	STEL	500 mg/m3
		203 ppm
	TWA	200 mg/m3
		81 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
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 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
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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
Isopropanol (CAS 67-63-0)	TWA	500 mg/m <sup>3</sup>
		200 ppm

**Spain. Occupational Exposure Limits**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m <sup>3</sup>
		400 ppm
	TWA	500 mg/m <sup>3</sup>
		200 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/m <sup>3</sup>
		10000 ppm
		9000 mg/m <sup>3</sup>
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		600 mg/m <sup>3</sup>
	TWA	250 ppm
		350 mg/m <sup>3</sup>
		150 ppm

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m <sup>3</sup>
		5000 ppm
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m <sup>3</sup>
		400 ppm
	TWA	500 mg/m <sup>3</sup>
		200 ppm

**UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m <sup>3</sup>
		15000 ppm
		9150 mg/m <sup>3</sup>
Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		1250 mg/m <sup>3</sup>
	TWA	500 ppm
		999 mg/m <sup>3</sup>
		400 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/m <sup>3</sup>
		5000 ppm

**Biological limit values**

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

Components	Value	Determinant	Specimen	Sampling time
Isopropanol (CAS 67-63-0)	50 mg/l	Acetone	Urine	*
	50 mg/l	Acetone	Blood	*

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

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

Components	Value	Determinant	Specimen	Sampling time
Isopropanol (CAS 67-63-0)	25 mg/l	Aceton	Urine	*



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

Components	Value	Determinant	Specimen	Sampling time
	25 mg/l	Aceton	Blood	*

\* - 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
Isopropanol (CAS 67-63-0)	40 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
Isopropanol (CAS 67-63-0)	25 mg/l	Aceton	Urine	*
	25 mg/l	Aceton	Blood	*

\* - 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.

**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 suitable protective 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** Hydrocarbon-like.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 60,5 °C (140,9 °F)

**Flash point** < -18,0 °C (< -0,4 °F) Tag closed cup

**Evaporation rate** < 1 (Ethyl Ether = 1)

**Flammability (solid, gas)** Flammable gas.

## Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0,6 %

Flammability limit - upper (%) 7 %

Vapour pressure 352,53 mm Hg @ 38°C

Vapour density ~3 (air = 1)

Relative density Not available.

## Solubility(ies)

Solubility (water) < 10 % w/w

Partition coefficient (n-octanol/water) > 1

Auto-ignition temperature 306 °C (582,8 °F)

Decomposition temperature Not available.

Viscosity < 3 cSt @ 25°C

Explosive properties Not explosive.

Oxidising properties Not oxidising.

## 9.2. Other information

Heat of combustion > 30 kJ/g

Percent volatile 100 %

Specific gravity 0,64 - 0,67 @ 20°C

VOC 96,2 % per US State and Federal Consumer Product Regulations; 669 g/L per SCAQMD Rule 102

## 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. Isocyanates. Chlorine.

**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** No adverse effects due to skin contact are expected.

**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.

### 11.1. Information on toxicological effects

**Acute toxicity** Narcotic effects.

**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** 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

Isopropanol (CAS 67-63-0)

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)**

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Mixture versus substance information</b>	No information available.
<b>Other information</b>	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
Isopropanol (CAS 67-63-0)		
<b>Aquatic</b>		
Fish	LC50 Bluegill ( <i>Lepomis macrochirus</i> )	> 1400 mg/l, 96 hours

**12.2. Persistence and degradability**

**12.3. Bioaccumulative potential**

**Partition coefficient**

**n-octanol/water (log Kow)**

LPS® CFC Free (Aerosol)	> 1
Isopropanol	0,05

**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** The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 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**

<b>14.1. UN number</b>	UN1950
<b>14.2. UN proper shipping name</b>	Aerosols, flammable
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Hazard No. (ADR)</b>	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. 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. 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. 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** 2X

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. 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** -

**Label(s)** 2.1

**14.4. Packing group** Not available.

**14.5. Environmental hazards**

**Marine pollutant** Yes

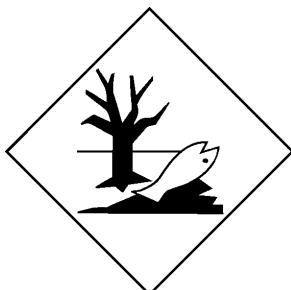
**EmS** F-D, S-U

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. 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.



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**

Isopropanol (CAS 67-63-0)

#### 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.

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

<b>List of abbreviations</b>	Not available.
<b>References</b>	Not available.
<b>Information on evaluation method leading to the classification of mixture</b>	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
<b>Full text of any statements or R-phrases and H-statements under Sections 2 to 15</b>	R11 Highly flammable. R12 Extremely flammable. R36 Irritating to eyes. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R67 Vapours may cause drowsiness and dizziness. H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
<b>Revision information</b>	None.
<b>Training information</b>	Follow training instructions when handling this material.
<b>Disclaimer</b>	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 provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.