# SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation

LPS® KB88 (Aerosol)

of the mixture

**Registration number** 

**Synonyms** None.

**Part Number** 02316, M02316 19-August-2014 Issue date

Version number

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

**Identified uses** A high performance penetrant designed to loosen metal parts.

None known. Uses advised against 1.3. Details of the supplier of the safety data sheet **Supplier** Geocel Limited

Western Wood Way, Langage Science Park, Plympton, Company name

**Address** 

Plymouth, PL7 5BG United Kingdom

+001 703-527-3887

+44 (0)1752 202060 / +44 (0)1752 334384 **Telephone** 

In Case of Emergency

Manufacturer

LPS Laboratories, a division of Illinois Tool Works, Inc. Company name 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.) **Address** 

Website http://www.lpslabs.com e-mail sds@lpslabs.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, Xn;R65, Xi;R38, R67

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.

**Health hazards** 

Aspiration hazard

Skin corrosion/irritation Category 2 H315 - Causes skin irritation.

Specific target organ toxicity - single Category 3 narcotic effects H336 - May cause drowsiness or

exposure dizziness. Category 1

H304 - May be fatal if swallowed

and enters airways.

**Hazard summary** 

Physical hazards Extremely flammable.

Health hazards Irritating to skin. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness

and dizziness. Occupational exposure to the substance or mixture may cause adverse health

effects.

**Environmental hazards** Not classified for hazards to the environment.

Specific hazards Extremely flammable. Irritating to eyes and skin. Harmful: may cause lung damage if swallowed.

Material name: LPS® KB88 (Aerosol) - LPS Laboratories (EU) 02316, M02316 Version No.: 01 Issue date: 19-August-2014 Main symptoms Skin irritation. Symptoms may include redness, oedema, drying, defatting and cracking of the

skin. Direct contact with eyes may cause temporary irritation. Exposed may experience eye tearing, redness, and discomfort. Vapours have a narcotic effect and may cause headache,

fatigue, dizziness and nausea.

#### 2.2. Label elements

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

Contains: Carbon dioxide, Distillates Petroleum, Hydroteated Light, Solvent naphtha (petroleum), heavy

arom.

**Hazard pictograms** 



Signal word Danger

**Hazard statements** 

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated. H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

### **Precautionary statements**

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source.
P251 Pressurised container: 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.

P280 Wear protective gloves.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTRE or doctor/physician if you feel unwell.

P321 Specific treatment (see this label).

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

**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.

**2.3. Other hazards** None known.

## **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

**General information** 

Chemical name % CAS-No. / EC No. REACH Registration No. INDEX No. Notes

Distillates Petroleum, Hydroteated 30 - 40 64742-47-8 - 649-422-00-2

Light 265-149-8

Classification: DSD: Xn;R65

CLP: Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336

Material name: LPS® KB88 (Aerosol) - LPS Laboratories (EU) 02316, M02316 Version No.: 01 Issue date: 19-August-2014

CAS-No. / EC No. REACH Registration No. INDEX No. Chemical name **Notes** %

Solvent naphtha (petroleum), heavy 64742-94-5 649-424-00-3 20 - 30

arom.

265-198-5

DSD: Xn;R65 Classification:

CLP: Asp. Tox. 1;H304

Carbon dioxide 1 - 5 124-38-9

204-696-9

Classification: DSD: -

CLP: -

CLP: Regulation No. 1272/2008. DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

**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. Call a POISON CENTRE or doctor/physician if you feel unwell.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing

difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

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

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Call a physician or poison control centre immediately. Only induce vomiting at the instruction of

medical personnel. Never give anything by mouth to an unconsious person. If vomiting occurs,

keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and

delayed

Skin irritation. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and

nausea.

4.3. Indication of any immediate medical attention

and special treatment needed

Provide general supportive measures and treat symptomatically.

## **SECTION 5: Firefighting measures**

General fire hazards Extremely flammable aerosol.

5.1. Extinguishing media

Suitable extinguishing

media

Powder. Alcohol resistant foam. Water. Water spray. 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

5.3. Advice for firefighters

Special protective equipment for firefighters

Special fire fighting procedures

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

Contents under pressure. Pressurised container may explode when exposed to heat or flame.

Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to

prevent vapor pressure build up.

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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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

6.2. Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid

discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Stop the flow of material, if this is without risk. Collect spillage. Use water spray to reduce vapours or divert vapour cloud drift. Prevent entry into waterways, sewer, basements or confined areas.

Following product recovery, flush area with water.

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

# **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. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. 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. Do not puncture, incinerate or crush. Keep away from heat and sources of ignition. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

Not available.

7.3. Specific end use(s)

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

Occupational exposure limits

Components	Туре	Value
Carbon dioxide (CAS 124-38-9)	Ceiling	18000 mg/m3
		10000 ppm
	MAK	9000 mg/m3
		5000 ppm
Belgium. Exposure Limit Value	s.	
Components	Туре	Value
Carbon dioxide (CAS 124-38-9)	STEL	54784 mg/m3
		30000 ppm
	TWA	9131 mg/m3
		5000 ppm
Bulgaria. OELs. Regulation No	13 on protection of workers aga	ainst risks of exposure to chemical agents at work
Components	Туре	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
Croatia. Dangerous Substance	<b>Exposure Limit Values in the W</b>	orkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09
Components	Type	Value
Carbon dioxide (CAS 124-38-9)	MAC	9000 mg/m3

	T\A/ A	0000 ma/m2
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
Czech Republic. OELs. Governr Components	ment Decree 361 Type	Value
Carbon dioxide (CAS		
124-38-9)	Ceiling	45000 mg/m3
,	TWA	9000 mg/m3
Denmark. Exposure Limit Value Components	es Type	Value
Carbon dioxide (CAS	TLV	9000 mg/m3
124-38-9)	ILV	9000 mg/ms
		5000 ppm
Estonia. OELs. Occupational Ex 2001)	rposure Limits of Hazardous Sul	ostances. (Annex of Regulation No. 293 of 18 Septeml
Components	Туре	Value
Carbon dioxide (CAS	TWA	9000 mg/m3
124-38-9)		5000 ppm
Finland. Workplace Exposure L	imits	осос ррш
Components	Туре	Value
Carbon dioxide (CAS	TWA	9100 mg/m3
124-38-9)		5000 ppm
France. Threshold Limit Values	(VLEP) for Occupational Expos	ure to Chemicals in France, INRS ED 984
Components	Туре	Value
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
121 00 0)		5000 ppm
Germany. DFG MAK List (adviso	ory OELs). Commission for the I	5000 ppm nvestigation of Health Hazards of Chemical Compoun
Germany. DFG MAK List (advison in the Work Area (DFG)		nvestigation of Health Hazards of Chemical Compoun
Germany. DFG MAK List (adviso in the Work Area (DFG) Components	Туре	nvestigation of Health Hazards of Chemical Compoun  Value
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS		vestigation of Health Hazards of Chemical Compoun  Value  9100 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9)	<b>Type</b> TWA	Value 9100 mg/m3 5000 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS	Туре	vestigation of Health Hazards of Chemical Compoun  Value  9100 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS	<b>Type</b> TWA	Value  9100 mg/m3  5000 ppm 140 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)	Type TWA TWA	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value	<b>Type</b> TWA	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS	Type  TWA  TWA  TWA  es in the Ambient Air at the Wor	value 9100 mg/m3 5000 ppm 140 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS	Type  TWA  TWA  TWA  es in the Ambient Air at the Wor  Type	value 9100 mg/m3 5000 ppm 140 mg/m3 20 ppm kplace Value 9100 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9)	Type  TWA  TWA  es in the Ambient Air at the Wor Type  AGW	value 9100 mg/m3 5000 ppm 140 mg/m3 20 ppm kplace Value Value
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19	Type  TWA  TWA  es in the Ambient Air at the Wor Type  AGW	value 9100 mg/m3 5000 ppm 140 mg/m3 20 ppm kplace Value 9100 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19 Components Carbon dioxide (CAS	Type TWA TWA  es in the Ambient Air at the Wor Type AGW  999, as amended)	value 9100 mg/m3 5000 ppm 140 mg/m3 20 ppm kplace Value 9100 mg/m3 5000 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19 Components Carbon dioxide (CAS	Type  TWA  TWA  TWA  es in the Ambient Air at the Wor Type  AGW  999, as amended) Type	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm  kplace  Value  9100 mg/m3  5000 ppm  tylue  9100 mg/m3  5000 ppm  Value  9100 mg/m3  5000 ppm  Value  54000 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19 Components Carbon dioxide (CAS	Type TWA  TWA  es in the Ambient Air at the Wor Type  AGW  999, as amended) Type  STEL	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm  kplace  9100 mg/m3  5000 ppm  Value  9100 mg/m3  5000 ppm  Value  54000 mg/m3  5000 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19 Components Carbon dioxide (CAS	Type  TWA  TWA  TWA  es in the Ambient Air at the Wor Type  AGW  999, as amended) Type	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm  kplace  Value  9100 mg/m3  5000 ppm  tylue  9100 mg/m3  5000 ppm  Value  9100 mg/m3  5000 ppm  Value  54000 mg/m3
Germany. DFG MAK List (advisor in the Work Area (DFG) Components Carbon dioxide (CAS 124-38-9) Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Germany. TRGS 900, Limit Value Components Carbon dioxide (CAS 124-38-9) Greece. OELs (Decree No. 90/19 Components Carbon dioxide (CAS 124-38-9)	Type TWA  TWA  es in the Ambient Air at the Wor Type  AGW  999, as amended) Type  STEL	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm  kplace  Value  9100 mg/m3  5000 ppm  5000 ppm  Value  54000 mg/m3  5000 ppm  9000 mg/m3  5000 ppm
Germany. DFG MAK List (advisor in the Work Area (DFG) Components  Carbon dioxide (CAS 124-38-9)  Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)  Germany. TRGS 900, Limit Value Components  Carbon dioxide (CAS 124-38-9)  Greece. OELs (Decree No. 90/19 Components  Carbon dioxide (CAS 124-38-9)	Type TWA  TWA  TWA  es in the Ambient Air at the Wor Type AGW  999, as amended) Type STEL  TWA	value  9100 mg/m3  5000 ppm 140 mg/m3  20 ppm  kplace  Value  9100 mg/m3  5000 ppm  5000 ppm  Value  54000 mg/m3  5000 ppm  9000 mg/m3  5000 ppm

	Туре	
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
121 00 0)		5000 ppm
reland. Occupational Exposure Components	Limits Type	Value
	STEL	
Carbon dioxide (CAS 124-38-9)	SIEL	27000 mg/m3
	T\A/ A	15000 ppm
	TWA	9000 mg/m3 5000 ppm
taly. Occupational Exposure Li	mits	
Components	Туре	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
121 00 0)		5000 ppm
Latvia. OELs. Occupational exp Components	osure limit values of chemical s Type	substances in work environment Value
Carbon dioxide (CAS	TWA	9000 mg/m3
124-38-9)	1 **/ \	•
ithuania OFI a Limit Value of	ion Chamical Cubatanasa Cons	5000 ppm
Littiuania. OELS. Limit values t Components	or Chemical Substances, Gener Type	rai Requirements Value
Carbon dioxide (CAS	TWA	9000 mg/m3
124-38-9)		5000 ppm
Components	onal exposure limit values (Ann Type	ex I), Memorial A Value
Components Carbon dioxide (CAS	- · · · · · · · · · · · · · · · · · · ·	
Components Carbon dioxide (CAS 124-38-9)	Type	<b>Value</b> 9000 mg/m3 5000 ppm
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expo	Type	Value 9000 mg/m3
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expo	Type	<b>Value</b> 9000 mg/m3 5000 ppm
Components  Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expo Schedules I and V)  Components	Type  TWA  osure Limit Values (L.N. 227. of	Value 9000 mg/m3 5000 ppm Occupational Health and Safety Authority Act (CAP. 4
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposochedules I and V) Components Carbon dioxide (CAS	Type  TWA  osure Limit Values (L.N. 227. of  Type	Value 9000 mg/m3 5000 ppm Occupational Health and Safety Authority Act (CAP. 4 Value 9000 mg/m3
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposichedules I and V)  Components  Carbon dioxide (CAS 124-38-9)	Type  TWA  osure Limit Values (L.N. 227. of  Type	Value 9000 mg/m3 5000 ppm Occupational Health and Safety Authority Act (CAP. 4
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expensional Expensiona	Type  TWA  osure Limit Values (L.N. 227. of  Type	Value 9000 mg/m3 5000 ppm Occupational Health and Safety Authority Act (CAP. 4 Value 9000 mg/m3
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposorements Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components Carbon dioxide (CAS 124-38-9)	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expensional Expension	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposic Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms in	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposice Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Tope  TWA	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposice Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TWA  Type	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposition Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labo	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TWA  Type  TWA  Type  TUA	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value  9000 mg/m3
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposic Schedules I and V) Components Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components Carbon dioxide (CAS 124-38-9)  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  for Contaminants in the Workplatype  TLV  Fur and Social Policy Regarding	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value  9000 mg/m3  5000 ppm  Maximum Allowable Concentrations and Intensities
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Expensional Expension	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  for Contaminants in the Workplatype  TLV  Fur and Social Policy Regarding  Type	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value  9000 mg/m3  5000 ppm  Maximum Allowable Concentrations and Intensities  Value
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposional Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms (Components)  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment Components  Carbon dioxide (CAS	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TLV  Fur and Social Policy Regarding  Type  STEL	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value  9000 mg/m3  5000 ppm  Maximum Allowable Concentrations and Intensities  Value  27000 mg/m3
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposice Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment Components  Carbon dioxide (CAS 124-38-9)	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TUV  TUV  TUV  TUV  TUV  TUV  TUV  TYPE  TLV  TYPE  STEL  TWA	Value  9000 mg/m3  5000 ppm  Occupational Health and Safety Authority Act (CAP. 4  Value  9000 mg/m3  5000 ppm  Value  9000 mg/m3  ace  Value  9000 mg/m3  5000 ppm  Maximum Allowable Concentrations and Intensities  Value  27000 mg/m3  9000 mg/m3
Components Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposition Schedules I and V) Components Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment Components Carbon dioxide (CAS 124-38-9)  Portugal. OELs. Decree-Law n. 2	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TLV  Four and Social Policy Regarding  Type  STEL  TWA  290/2001 (Journal of the Republe)	Value   9000 mg/m3   5000 ppm
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposic Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment Components  Carbon dioxide (CAS 124-38-9)  Portugal. OELs. Decree-Law n. 20 124-38-9)  Portugal. OELs. Decree-Law n. 20 124-38-9	Type TWA  Dosure Limit Values (L.N. 227. of Type TWA  Type TWA  Type TWA  Type TLV  Four and Social Policy Regarding Type STEL TWA  290/2001 (Journal of the Republication Type) Type	Value 9000 mg/m3 5000 ppm Occupational Health and Safety Authority Act (CAP. 4  Value 9000 mg/m3 5000 ppm  Value 9000 mg/m3 ace Value 9000 mg/m3 5000 ppm  Maximum Allowable Concentrations and Intensities Value 27000 mg/m3 9000 mg/m3 9000 mg/m3 ic - 1 Series A, n.266) Value
Carbon dioxide (CAS 124-38-9)  Malta. OELs. Occupational Exposice Schedules I and V) Components  Carbon dioxide (CAS 124-38-9)  Netherlands. OELs (binding) Components  Carbon dioxide (CAS 124-38-9)  Norway. Administrative Norms of Components  Carbon dioxide (CAS 124-38-9)  Poland. MACs. Minister of Labor Working Environment Components  Carbon dioxide (CAS 124-38-9)	Type  TWA  Dosure Limit Values (L.N. 227. of  Type  TWA  Type  TWA  Type  TWA  Type  TLV  Four and Social Policy Regarding  Type  STEL  TWA  290/2001 (Journal of the Republe)	Value   9000 mg/m3   5000 ppm

Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
,	TWA	5000 ppm	
Romania. OELs. Protection of Components	f workers from exposure to chem Type	ical agents at the workplace Value	
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3	
		5000 ppm	
Slovakia. OELs. Regulation N Components	lo. 300/2007 concerning protection Type	n of health in work with chemical agents Value	
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3	
124-30-3)		5000 ppm	
		against risks due to exposure to chemicals while worl	
(Official Gazette of the Repul	•	Value	
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3	
,		5000 ppm	
Spain. Occupational Exposu		Value	
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m3	
33 37		5000 ppm	
Sweden. Occupational Expos			
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	STEL	18000 mg/m3	
,		10000 ppm	
	TWA	9000 mg/m3	
O	de eus Aub eideurlede	5000 ppm	
Switzerland. SUVA Grenzwei Components	te am Arbeitsplatz Type	Value	
Carbon dioxide (CAS	TWA	9000 mg/m3	
124-38-9)	IVVA	9000 mg/ms	
		5000 ppm	
UK. EH40 Workplace Exposu		Value	
Components	Туре		
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m3	
,		15000 ppm	
	TWA	9150 mg/m3	
EU Larraga e la casa de la casa	. V. I	5000 ppm	
EU. Indicative Exposure Limi Components	t Values in Directives 91/322/EEC, Type	, 2000/39/EC, 2006/15/EC, 2009/161/EU Value	
Carbon dioxide (CAS	TWA	9000 mg/m3	
124-38-9)		5000 ppm	
ogical limit values	No biological exposure limits noted	• •	
ommended monitoring	Follow standard monitoring procedu		
cedures	Not available.		
ved no-effect level (DNEL)			
dicted no effect	Not available.		
centrations (PNECs)			

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

Use personal protective equipment as required. Personal protection equipment should be chosen **General information** 

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 Chemical resistant gloves are recommended.

- Other Avoid contact with the skin. Wear appropriate chemical resistant clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate

certified respirators.

Thermal hazards Not applicable.

Hygiene measures 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

Contain spills and prevent releases and observe national regulations on emissions. Environmental

manager must be informed of all major releases.

# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

**Appearance** Liquid. Physical state Gas. **Form** Aerosol Colour Clear Red

Hydrocarbon-like. Odour **Odour threshold** Not available. Not applicable pН Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

71,0 °C (159,8 °F) Tag closed cup Flash point

**Evaporation rate** < 0.1 BuAc Flammability (solid, gas) Flammable gas

Upper/lower flammability or explosive limits Flammability limit - lower

(%)

0.6 %

Flammability limit - upper

(%)

11,7%

< 1 mm Hg @ 20°C (est.) Vapour pressure

> 1 Vapour density

Relative density Not available.

Solubility(ies)

Not soluble Solubility (water) Not available. Solubility (other) Not available **Partition coefficient** 

(n-octanol/water)

> 215,56 °C (> 420 °F) **Auto-ignition temperature** 

Not available. **Decomposition temperature** 

Low viscosity comparable to water (water = 1cST @ 20°C) **Viscosity** 

**Explosive properties** Not available. Oxidizing properties Not available.

9.2. Other information

7,30 lb/gal Density Heat of combustion > 30 kJ/g

Percent volatile 92 %

Specific gravity 0,88 @23°C

VOC (Weight %) 24 % per U.S State and Federal Consumer Product Regulations.

# **SECTION 10: Stability and reactivity**

10.1. Reactivity Strong oxidising agents. Strong acids.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.

Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**10.5. Incompatible materials** Strong oxidising agents.

**10.6. Hazardous** Carbon oxides.

decomposition products

10.4. Conditions to avoid

# **SECTION 11: Toxicological information**

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

Information on likely routes of exposure

**Ingestion** May be fatal if swallowed and enters airways.

**Inhalation** Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

**Skin contact** Causes skin irritation.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Symptoms** Skin irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Direct contact with eyes may cause temporary irritation. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Behavioural changes. Decrease in

motor functions.

# 11.1. Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects.

Components	Species	Test results
------------	---------	--------------

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Cat > 6,4 mg/l

Rat > 0.1 mg/l

Oral

LD50 Rat > 5000 mg/kg

Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

**Acute** 

Dermal

LD50 Rabbit > 2000 mg/kg

Rat > 2000 mg/kg

Inhalation

LC50 Cat > 6,4 mg/l

Rat > 2,7 mg/m3

> 1,86 mg/l

Oral

LD100 Rat 5000 mg/kg LD50 Rat > 2000 mg/kg

Skin corrosion/irritation Causes skin 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.

**Reproductive toxicity**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Narcotic effects.

Specific target organ toxicity -

repeated exposure

Based on available data, the classification criteria are not met.

**Aspiration hazard** May be fatal if swallowed and enters airways.

Mixture versus substance

information

No information available.

Other information Not available.

# **SECTION 12: Ecological information**

**12.1. Toxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test results

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 2,9 mg/l, 96 hours

(Oncorhynchus mykiss)

12.2. Persistence and

degradability

Not inherently biodegradable.

**12.3. Bioaccumulative potential** Not available. **Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** Readily absorbed into soil.

12.5. Results of PBT

and vPvB

Not available.

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** Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied. 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. 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 Aerosols, flammable

name

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 applicable.

14.5. Environmental hazards No

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

for user

RID

**14.1. UN number** UN1950

Aerosols, flammable 14.2. UN proper shipping

name

14.3. Transport hazard class(es) Class 2.1 Subsidiary risk 2.1 Label(s)

Not applicable. 14.4. Packing group

14.5. Environmental hazards No

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

for user

**ADN** 

14.1. UN number UN1950

14.2. UN proper shipping Aerosols, [flammable]

name

14.3. Transport hazard class(es)

Class Subsidiary risk Label(s) 2.1

14.4. Packing group Not applicable.

14.5. Environmental hazards No

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

for user

IATA

UN1950 14.1. UN number

14.2. UN proper shipping Aerosols, flammable

name

14.3. Transport hazard class(es)

Class 2.1 Subsidiary risk

14.4. Packing group Not applicable.

14.5. Environmental hazards No **ERG Code** 

14.6. Special precautions

for user Other information Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

Allowed.

aircraft

Cargo aircraft only Allowed.

**IMDG** 

14.1. UN number UN1950

AEROSOLS, Flammable 14.2. UN proper shipping

name

14.3. Transport hazard class(es)

**Class** 2.1 Subsidiary risk 2.1 Label(s)

Not applicable. 14.4. Packing group

14.5. Environmental hazards

Marine pollutant No F-D. S-U **EmS** 

14.6. Special precautions

for user

Read safety instructions, SDS and emergency procedures before handling.

This substance/mixture is not intended to be transported in bulk.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC

Code

Material name: LPS® KB88 (Aerosol) - LPS Laboratories (EU) 02316, M02316 Version No.: 01 Issue date: 19-August-2014



# **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

Not listed

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended Not listed.

Regulation (EC) No. 689/2008 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

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) 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

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

## Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws.

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations Young people under 18 years old are not allowed to work with this product according to the EU

Directive 94/33/EC on the protection of young people at work. Follow national regulation for work

with chemical agents.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

Material name: LPS® KB88 (Aerosol) - LPS Laboratories (EU) 02316, M02316 Version No.: 01 Issue date: 19-August-2014

# **SECTION 16: Other information**

List of abbreviations Not available. Not available. References

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

R12 Extremely flammable.

R38 Irritating to skin.

None.

R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness. H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

**Revision information Training information** 

Follow training instructions when handling this material.

Disclaimer

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.

# SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation

LPS® KB88

of the mixture

Registration number

**Synonyms** None.

**Part Number** M02322, M02301, M02305

19-August-2014 Issue date

Version number

19-August-2014 **Revision date** Supersedes date 19-August-2014

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

Identified uses A high performance penetrant designed to loosen metal parts.

Uses advised against None known. 1.3. Details of the supplier of the safety data sheet

Geocel Limited

Western Wood Way, Langage Science Park, Plympton, Company name

**Address** 

Plymouth, PL7 5BG United Kingdom

+44 (0)1752 202060 / +44 (0)1752 334384 **Telephone** 

+001 703-527-3887 In Case of Emergency

Manufacturer

Company name LPS Laboratories, a division of Illinois Tool Works, Inc. **Address** 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)

Website http://www.lpslabs.com e-mail sds@lpslabs.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 Xn:R65, Xi:R38, R67 The full text for all R-phrases is displayed in section 16.

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

**Health hazards** 

H315 - Causes skin irritation. Skin corrosion/irritation Category 2 H336 - May cause drowsiness or

Specific target organ toxicity - single Category 3 narcotic effects

dizziness.

exposure

Aspiration hazard H304 - May be fatal if swallowed Category 1

and enters airways.

**Hazard summary** 

Physical hazards Not classified for physical hazards.

**Health hazards** Irritating to skin. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness

and dizziness. Occupational exposure to the substance or mixture may cause adverse health

effects

**Environmental hazards** Not classified for hazards to the environment.

Specific hazards Combustible. Irritating to eyes and skin. Harmful: may cause lung damage if swallowed.

Main symptoms Skin irritation. Symptoms may include redness, oedema, drying, defatting and cracking of the

skin. Direct contact with eyes may cause temporary irritation. Exposed may experience eye tearing, redness, and discomfort. Vapours have a narcotic effect and may cause headache,

fatigue, dizziness and nausea.

## 2.2. Label elements

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

Distillates Petroleum, Hydroteated Light, Solvent naphtha (petroleum), heavy arom. Contains:

Hazard pictograms



Signal word Danger

**Hazard statements** 

May be fatal if swallowed and enters airways. H304

Causes skin irritation. H315

May cause drowsiness or dizziness. H336

**Precautionary statements** 

Prevention

Avoid breathing mist or vapour. P261 Wash thoroughly after handling. P264

Use only outdoors or in a well-ventilated area. P271

Wear protective gloves. P280

Response

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. P301 + P310

IF ON SKIN: Wash with plenty of soap and water. P302 + P352

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P304 + P340

Call a POISON CENTRE or doctor/physician if you feel unwell. P312

Specific treatment (see this label). P321

Do NOT induce vomiting. P331

If skin irritation occurs: Get medical advice/attention. P332 + P313 Take off contaminated clothing and wash before reuse. P362

Storage

Store in a well-ventilated place. Keep container tightly closed. P403 + P233

Store locked up. P405

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations. P501

Supplemental label information None.

2.3. Other hazards None known.

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

**General information** 

**Chemical name** CAS-No. / EC No. REACH Registration No. INDEX No. **Notes** 

649-422-00-2 Distillates Petroleum, Hydroteated 30 - 4064742-47-8

Light 265-149-8

Classification: DSD: Xn:R65

CLP: Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336

Solvent naphtha (petroleum), heavy 20 - 3064742-94-5 649-424-00-3

arom. 265-198-5

Classification: DSD: Xn;R65

CLP: Asp. Tox. 1;H304

CLP: Regulation No. 1272/2008.

Material name: LPS® KB88 - LPS Laboratories (EU)

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

M: M-factor

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

SDS EU

## **SECTION 4: First aid measures**

**General information** 

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Call a POISON CENTRE or doctor/physician if you feel unwell.

## 4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing

difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

Skin contact

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

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

Call a physician or poison control centre immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconsious person. If vomiting occurs,

keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed

Skin irritation. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

# **SECTION 5: Firefighting measures**

General fire hazards

5.1. Extinguishing media

No unusual fire or explosion hazards noted.

Suitable extinguishing media

Alcohol resistant foam. Water spray. Water fog. Dry chemical 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

During fire, gases hazardous to health may be formed.

from the substance or mixture 5.3. Advice for firefighters

> Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

# **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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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

6.2. Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Stop the flow of material, if this is without risk. Collect spillage. Use water spray to reduce vapours or divert vapour cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

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

## **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat and sources of ignition. 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.

Material name: LPS® KB88 - LPS Laboratories (EU)

M02322, M02301, M02305 Version No.: 02 Revision date: 19-August-2014 Issue date: 19-August-2014

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

## Occupational exposure limits

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

in the Work Area (DFG)

Components Type Value Distillates Petroleum, **TWA** 140 mg/m3 Hydroteated Light (CAS

64742-47-8)

20 ppm

**Biological limit values** 

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

Recommended monitoring

Derived no-effect level (DNEL)

procedures

Follow standard monitoring procedures.

Predicted no effect concentrations (PNECs)

Not available. 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 Chemical resistant gloves are recommended.

- Other Avoid contact with the skin. Wear appropriate chemical resistant clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate

certified respirators.

Not applicable. Thermal hazards

Always observe good personal hygiene measures, such as washing after handling the material Hygiene measures

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

**Environmental exposure** 

controls

Contain spills and prevent releases and observe national regulations on emissions. Environmental

manager must be informed of all major releases.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Liquid. **Appearance** Physical state Liquid. **Form** Liquid. Clear Red Colour

Odour Hydrocarbon-like. **Odour threshold** Not available. Not applicable pН Melting point/freezing point Not available. Initial boiling point and boiling Not available.

range

71.0 °C (159.8 °F) Tag closed cup Flash point

< 0.1 BuAc **Evaporation rate** Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits

Flammability limit - lower

0.6 %

(%)

Flammability limit - upper 11,7 %

(%)

< 1 mm Hg @ 20°C (est.) Vapour pressure

Vapour density

Not available. Relative density

Solubility(ies)

Not soluble Solubility (water) Solubility (other) Not available. Not available Partition coefficient

(n-octanol/water)

> 215,56 °C (> 420 °F) **Auto-ignition temperature** 

**Decomposition temperature** Not available.

Low viscosity comparable to water (water = 1cST @ 20°C) Viscosity

Not available. **Explosive properties** Not available. Oxidizing properties

9.2. Other information

7,30 lb/gal Density Percent volatile 92 %

0,88 @23ºC Specific gravity

VOC (Weight %) 25 % per U.S State and Federal Consumer Product Regulations.

# **SECTION 10: Stability and reactivity**

10.1. Reactivity Strong oxidising agents. Strong acids. Material is stable under normal conditions. 10.2. Chemical stability

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Avoid temperatures exceeding the flash point. Contact with incompatible materials.

10.5. Incompatible materials Strong oxidising agents.

Carbon oxides. 10.6. Hazardous

decomposition products

10.4. Conditions to avoid

# **SECTION 11: Toxicological information**

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

Information on likely routes of exposure

Ingestion May be fatal if swallowed and enters airways.

Inhalation Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Skin contact Causes skin irritation.

**Eve contact** Direct contact with eyes may cause temporary irritation.

**Symptoms** Skin irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

> Direct contact with eyes may cause temporary irritation. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Behavioural changes. Decrease in

motor functions.

## 11.1. Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects.

Components **Test results** 

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)

Acute

Dermal

Rabbit LD50 > 2000 mg/kg

Inhalation

LC50 Cat > 6.4 mg/l

Rat > 0,1 mg/l

Oral

LD50 Rat > 5000 mg/kg

M02322, M02301, M02305 Version No.: 02 Revision date: 19-August-2014 Issue date: 19-August-2014

Components Species Test results

Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg
Rat > 2000 mg/kg

Inhalation

LC50 Cat > 6.4 mg/l

Rat > 2.7 mg/m3> 1.86 mg/l

Oral

LD100 Rat 5000 mg/kg LD50 Rat > 2000 mg/kg

**Skin corrosion/irritation** Causes skin 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.

**Reproductive toxicity**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Narcotic effects.

Specific target organ toxicity -

repeated exposure

Based on available data, the classification criteria are not met.

**Aspiration hazard** May be fatal if swallowed and enters airways.

Mixture versus substance

information

No information available.

Other information Not available.

## **SECTION 12: Ecological information**

**12.1. Toxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test results

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 2,9 mg/l, 96 hours

(Oncorhynchus mykiss)

12.2. Persistence and

degradability

Not inherently biodegradable.

**12.3. Bioaccumulative potential** Not available. **Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** Readily absorbed into soil.

12.5. Results of PBT

and vPvB assessment

Not available.

**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 Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

**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. 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** 

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

**ADN** 

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of

This substance/mixture is not intended to be transported in bulk.

MARPOL 73/78 and the IBC Code

# **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

Not listed

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended Not listed.

Regulation (EC) No. 689/2008 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

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) 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

Not listed

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

## Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

# Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

## Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws.

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations Follow national regulation for work with chemical agents.

15.2. Chemical safety No Chemical Safety Assessment has been carried out.

assessment

# **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

R38 Irritating to skin.

R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness. H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

**Revision information** Physical & Chemical Properties: Multiple Properties

HazReg Data: International Inventories

**Training information** Follow training instructions when handling this material.

**Disclaimer** 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.

Material name: LPS® KB88 - LPS Laboratories (EU)

M02322, M02301, M02305 Version No.: 02 Revision date: 19-August-2014 Issue date: 19-August-2014