



# SAFETY DATA SHEET

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

### 1.1. Product identifier

Trade name or designation of the mixture	LPS® Food Grade Silicone
Registration number	-
Synonyms	None.
Part Number	01716
Issue date	02-July-2015
Version number	02
Revision date	08-July-2016
Supersedes date	02-July-2015

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

Identified uses	A food grade industrial lubricant for rubber, plastic and metal parts.
Uses advised against	None known.

### 1.3. Details of the supplier of the safety data sheet

Supplier	Alsco Ltd
Company name	Unit 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	ITW Pro Brands
Address	4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)
Website	<a href="http://www.lpslabs.com">http://www.lpslabs.com</a>
e-mail	<a href="mailto:lpssds@itwprobrands.com">lpssds@itwprobrands.com</a>

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

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

**Classification** F+;R12, Xi;R38, R67, N;R51/53

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

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

##### Physical hazards

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

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Reproductive toxicity	Category 2	H361 - Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure (inhalation)	Category 2 (nervous system)	H373 - May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.

**Environmental hazards**

Hazardous to the aquatic environment,  
long-term aquatic hazard

Category 2

H411 - Toxic to aquatic life with  
long lasting effects.

**Hazard summary****Physical hazards**

Extremely flammable.

**Health hazards**

May impair fertility. May cause harm to the unborn child. Irritating to skin. 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**

Extremely flammable. Irritating to skin. Possible reproductive hazard. Do not breathe dust/fume/gas/mist/vapors/spray. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Main symptoms**

May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

**2.2. Label elements****Label according to Regulation (EC) No. 1272/2008 as amended****Contains:**

2,2-Dimethylbutane, 2,3-Dimethylbutane, 2-Methylpentane, 3-Methylpentane, n-Hexane, Petroleum Gases, Liquefied Sweetened, Poly (Dimethylsiloxane)

**Hazard pictograms****Signal word**

Danger

**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary statements****Prevention**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe gas.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER/doctor if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

**Storage**

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

**Disposal**

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Supplemental label information**

25 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

**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
2-Methylpentane	30 - 40	107-83-5 203-523-4	-	601-007-00-7	
<b>Classification:</b>		<b>DSD:</b> F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
Petroleum Gases, Liquefied Sweetened	20 - 30	68476-86-8 270-705-8	-	649-203-00-1	
<b>Classification:</b>		<b>DSD:</b> F+;R12, Carc. Cat. 1;R45, Muta. Cat. 2;R46			K,S
		<b>CLP:</b> Muta. 1B;H340, Carc. 1A;H350			K,S,U
2,3-Dimethylbutane	10 - 15	79-29-8 201-193-6	-	601-007-00-7	
<b>Classification:</b>		<b>DSD:</b> F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
3-Methylpentane	10 - 15	96-14-0 202-481-4	-	601-007-00-7	
<b>Classification:</b>		<b>DSD:</b> F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
2,2-Dimethylbutane	1 - 10	75-83-2 200-906-8	-	601-007-00-7	
<b>Classification:</b>		<b>DSD:</b> F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
Poly (Dimethylsiloxane)	1 - 5	63148-62-9 -	-	-	
<b>Classification:</b>		<b>DSD:</b> N;R51/53			
		<b>CLP:</b> Aquatic Chronic 2;H411			
n-Hexane	1 - 3	110-54-3 203-777-6	-	601-037-00-0	#
<b>Classification:</b>		<b>DSD:</b> F;R11, Repr. Cat. 3;R62, Xn;R65-48/20, Xi;R38, R67, N;R51/53			
		<b>CLP:</b> Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, STOT RE 2;H373, Aquatic Chronic 2;H411			

## 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.

Note K: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8).

Note S: This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1). This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).

Note U: When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

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

## SECTION 4: First aid measures

**General information** IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 4.1. Description of first aid measures

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

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

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

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

**4.2. Most important symptoms and effects, both acute and delayed** May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

**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** Foam. 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.

**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 breathe 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. This product is miscible in water. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

### 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not re-use empty containers. Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. 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. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

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

Components	Type	Value
2,2-Dimethylbutane (CAS 75-83-2)	MAK	715 mg/m <sup>3</sup>
		200 ppm
	STEL	2860 mg/m <sup>3</sup> 800 ppm
2,3-Dimethylbutane (CAS 79-29-8)	MAK	715 mg/m <sup>3</sup>
		200 ppm
	STEL	2860 mg/m <sup>3</sup> 800 ppm
2-Methylpentane (CAS 107-83-5)	MAK	715 mg/m <sup>3</sup>
		200 ppm
	STEL	2860 mg/m <sup>3</sup> 800 ppm
3-Methylpentane (CAS 96-14-0)	MAK	715 mg/m <sup>3</sup>
		200 ppm
	STEL	2860 mg/m <sup>3</sup> 800 ppm
n-Hexane (CAS 110-54-3)	MAK	72 mg/m <sup>3</sup>
		20 ppm
	STEL	288 mg/m <sup>3</sup> 80 ppm

##### Belgium. Exposure Limit Values.

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m <sup>3</sup>
		20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m <sup>3</sup>

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

Components	Type	Value
		20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	MAC	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	Ceiling TWA	200 mg/m3 70 mg/m3

**Denmark. Exposure Limit Values**

Components	Type	Value
n-Hexane (CAS 110-54-3)	TLV	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

**Finland. Workplace Exposure Limits**

Components	Type	Value
2,2-Dimethylbutane (CAS 75-83-2)	STEL	2300 mg/m3
	TWA	630 ppm 1800 mg/m3 500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	STEL	2300 mg/m3
	TWA	630 ppm 1800 mg/m3 500 ppm
2-Methylpentane (CAS 107-83-5)	STEL	2300 mg/m3
	TWA	630 ppm 1800 mg/m3 500 ppm
3-Methylpentane (CAS 96-14-0)	STEL	2300 mg/m3
	TWA	630 ppm 1800 mg/m3 500 ppm
n-Hexane (CAS 110-54-3)	STEL	2300 mg/m3
	TWA	630 ppm 72 mg/m3 20 ppm

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

Components	Type	Value	Form
n-Hexane (CAS 110-54-3)	VLE	1500 mg/m3	Vapor.
	VME	72 mg/m3	
		20 ppm	

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

Components	Type	Value
2,2-Dimethylbutane (CAS 75-83-2)	TWA	1800 mg/m3
		500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	TWA	1800 mg/m3
		500 ppm

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
2-Methylpentane (CAS 107-83-5)	TWA	1800 mg/m3 500 ppm
3-Methylpentane (CAS 96-14-0)	TWA	1800 mg/m3 500 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3 50 ppm

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
2,2-Dimethylbutane (CAS 75-83-2)	AGW	1800 mg/m3 500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	AGW	1800 mg/m3 500 ppm
2-Methylpentane (CAS 107-83-5)	AGW	1800 mg/m3 500 ppm
3-Methylpentane (CAS 96-14-0)	AGW	1800 mg/m3 500 ppm
n-Hexane (CAS 110-54-3)	AGW	180 mg/m3 50 ppm

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
n-Hexane (CAS 110-54-3)	TWA	90 mg/m3 25 ppm

**Ireland. Occupational Exposure Limits**

<b>Components</b>	<b>Type</b>	<b>Value</b>
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

**Italy. Occupational Exposure Limits**

<b>Components</b>	<b>Type</b>	<b>Value</b>
2,2-Dimethylbutane (CAS 75-83-2)	STEL	1000 ppm
	TWA	500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	STEL	1000 ppm
	TWA	500 ppm
2-Methylpentane (CAS 107-83-5)	STEL	1000 ppm
	TWA	500 ppm
3-Methylpentane (CAS 96-14-0)	STEL	1000 ppm
	TWA	500 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
n-Hexane (CAS 110-54-3)	STEL	300 mg/m3

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

Components	Type	Value
	TWA	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 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
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

**Netherlands. OELs (binding)**

Components	Type	Value
n-Hexane (CAS 110-54-3)	STEL TWA	144 mg/m3 72 mg/m3

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TLV	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	50 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

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

Components	Type	Value
n-Hexane (CAS 110-54-3)	STEL TWA	140 mg/m3 40 ppm 72 mg/m3 20 ppm

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

Components	Type	Value
2,2-Dimethylbutane (CAS 75-83-2)	TWA	720 mg/m3 200 ppm
2,3-Dimethylbutane (CAS 79-29-8)	TWA	720 mg/m3 200 ppm
2-Methylpentane (CAS 107-83-5)	TWA	720 mg/m3



**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
3-Methylpentane (CAS 96-14-0)	TWA	200 ppm
		720 mg/m <sup>3</sup>
n-Hexane (CAS 110-54-3)	TWA	200 ppm
		72 mg/m <sup>3</sup>
		20 ppm

**Spain. Occupational Exposure Limits**

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m <sup>3</sup>
		20 ppm

**Sweden. Occupational Exposure Limit Values**

Components	Type	Value	
2,2-Dimethylbutane (CAS 75-83-2)	STEL	1100 mg/m <sup>3</sup>	
		TWA	300 ppm
			700 mg/m <sup>3</sup>
2,3-Dimethylbutane (CAS 79-29-8)	STEL	200 ppm	
		TWA	1100 mg/m <sup>3</sup>
			300 ppm
2-Methylpentane (CAS 107-83-5)	STEL	700 mg/m <sup>3</sup>	
		TWA	200 ppm
			1100 mg/m <sup>3</sup>
3-Methylpentane (CAS 96-14-0)	STEL	300 ppm	
		TWA	700 mg/m <sup>3</sup>
			200 ppm
n-Hexane (CAS 110-54-3)	STEL	1100 mg/m <sup>3</sup>	
		TWA	300 ppm
			700 mg/m <sup>3</sup>
n-Hexane (CAS 110-54-3)	STEL	200 ppm	
		TWA	180 mg/m <sup>3</sup>
			50 ppm
n-Hexane (CAS 110-54-3)	TWA	90 mg/m <sup>3</sup>	
		25 ppm	

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Components	Type	Value	
2,2-Dimethylbutane (CAS 75-83-2)	STEL	3600 mg/m <sup>3</sup>	
		TWA	1000 ppm
			1800 mg/m <sup>3</sup>
2,3-Dimethylbutane (CAS 79-29-8)	STEL	500 ppm	
		TWA	3600 mg/m <sup>3</sup>
			1000 ppm
2-Methylpentane (CAS 107-83-5)	STEL	1800 mg/m <sup>3</sup>	
		TWA	500 ppm
			3600 mg/m <sup>3</sup>
3-Methylpentane (CAS 96-14-0)	STEL	1000 ppm	
		TWA	1800 mg/m <sup>3</sup>
			500 ppm
n-Hexane (CAS 110-54-3)	STEL	3600 mg/m <sup>3</sup>	
		TWA	1000 ppm
			1800 mg/m <sup>3</sup>
n-Hexane (CAS 110-54-3)	STEL	500 ppm	
		TWA	1440 mg/m <sup>3</sup>
			400 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m <sup>3</sup>	

**Switzerland. SUVA Grenzwerte am Arbeitsplatz  
Components Type**

**Value**

50 ppm

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

**Value**

n-Hexane (CAS 110-54-3)

TWA

72 mg/m<sup>3</sup>

20 ppm

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

**Value**

n-Hexane (CAS 110-54-3)

TWA

72 mg/m<sup>3</sup>

20 ppm

**Biological limit values**

**France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)  
Components Value Determinant Specimen Sampling time**

n-Hexane (CAS 110-54-3)

5 mg/g

2,5-Hexanedione

Creatinine in urine

\*

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

**Germany. TRGS 903, BAT List (Biological Limit Values)  
Components Value Determinant Specimen Sampling time**

n-Hexane (CAS 110-54-3)

5 mg/l

2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon (nach Hydrolyse)

Urine

\*

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

**Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices  
Components Value Determinant Specimen Sampling time**

n-Hexane (CAS 110-54-3)

3,5 mg/g

hexane-2,5-dion

Creatinine in urine

\*

3,5 µmol/mmol

hexane-2,5-dion

Creatinine in urine

\*

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

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

n-Hexane (CAS 110-54-3)

3 mg/g

2,5-hexanedione and 4,5-dihydroxy-2-hexanone

Creatinine in urine

\*

5 mg/l

2,5-hexanedione and 4,5-dihydroxy-2-hexanone

Urine

\*

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

**Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4  
Components Value Determinant Specimen Sampling time**

n-Hexane (CAS 110-54-3)

0,2 mg/l

2,5-Hexanediona, sin hidrólisis

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**

n-Hexane (CAS 110-54-3)

5 mg/l

2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon

Urine

\*

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

**Recommended monitoring procedures** Follow standard monitoring procedures.

<b>Derived no effect levels (DNELs)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.
<b>8.2. Exposure controls</b>	
<b>Appropriate engineering controls</b>	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. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	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.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>- Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>- Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Observe any medical surveillance requirements. 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.
<b>Environmental exposure controls</b>	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

<b>Physical state</b>	Gas.
<b>Form</b>	Aerosol
<b>Colour</b>	Clear. Colourless.
<b>Odour</b>	Mild. Ether-like.
<b>Odour threshold</b>	Not established
<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	Not established
<b>Initial boiling point and boiling range</b>	61 °C (141,8 °F)
<b>Flash point</b>	< -17,0 °C (< 1,4 °F) Tag closed cup
<b>Evaporation rate</b>	< 1 BuAc
<b>Flammability (solid, gas)</b>	Flammable gas.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	1 % (estimated)
<b>Flammability limit - upper (%)</b>	6 % (estimated)
<b>Vapour pressure</b>	352 mm Hg @ 38 °C
<b>Vapour density</b>	~3
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not soluble in water
<b>Solubility (other)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	> 1
<b>Auto-ignition temperature</b>	306 °C (582,8 °F)

<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	< 14 cSt @ 25°C
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.
<b>9.2. Other information</b>	
<b>Heat of combustion</b>	> 30 kJ/g
<b>Percent volatile</b>	96 %
<b>Specific gravity</b>	0,64 - 0,66 @ 20°C
<b>VOC</b>	96,1 % per State and Federal Consumer Product Regulations

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Fluorine. Chlorine. Nitrates.
<b>10.6. Hazardous decomposition products</b>	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

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
<b>Symptoms</b>	May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Skin irritation. May cause redness and pain.

### 11.1. Information on toxicological effects

**Acute toxicity** Narcotic effects.

Components	Species	Test results
n-Hexane (CAS 110-54-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 4 Hours > 5 ml/kg, 4 Hours
<b>Inhalation</b>		
LC50	Mouse	48000 ppm, 4 Hours
<i>Vapour</i>		
LC50	Rat	> 5000 ppm, 24 Hours > 31,86 mg/l 73860 ppm, 4 Hours
<b>Oral</b>		
LD50	Rat	28710 mg/kg 24 ml/kg
Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)		
<b>Acute</b>		
<b>Inhalation</b>		
<i>Gas</i>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
LC50	Rat	1355 mg/l

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.
<b>Skin sensitisation</b>	This product is not expected to cause skin sensitisation.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.
<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>	Symptoms may be delayed.

## SECTION 12: Ecological information

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

Components	Species	Test results
n-Hexane (CAS 110-54-3)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 2,101 - 2,981 mg/l, 96 hours
Poly (Dimethylsiloxane) (CAS 63148-62-9)		
<b>Aquatic</b>		
Fish	LC50	Channel catfish ( <i>Ictalurus punctatus</i> ) 2,36 - 4,15 mg/l, 96 hours

**12.2. Persistence and degradability** Not inherently biodegradable.

### 12.3. Bioaccumulative potential

#### Partition coefficient

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

LPS® Food Grade Silicone	> 1
2,2-Dimethylbutane	3,82
2,3-Dimethylbutane	3,42
2-Methylpentane	3,74
3-Methylpentane	3,6
n-Hexane	3,9

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** Not available.

#### assessment

**12.6. Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

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

### RID

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

### ADN

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

### IATA

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

### IMDG

**14.1. UN number** UN1950  
**14.2. UN proper shipping name** Aerosols, flammable  
**14.3. Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Label(s)** 2.1

<b>14.4. Packing group</b>	Not applicable.
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not available.
<b>14.6. Special precautions for user</b>	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.

**ADN; ADR; IATA; IMDG; RID**



## 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**  
n-Hexane (CAS 110-54-3)  
Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

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

Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

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

Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances**

2,2-Dimethylbutane (CAS 75-83-2)

2,3-Dimethylbutane (CAS 79-29-8)

2-Methylpentane (CAS 107-83-5)

3-Methylpentane (CAS 96-14-0)

n-Hexane (CAS 110-54-3)

Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

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

2,2-Dimethylbutane (CAS 75-83-2)  
2,3-Dimethylbutane (CAS 79-29-8)  
2-Methylpentane (CAS 107-83-5)  
3-Methylpentane (CAS 96-14-0)  
n-Hexane (CAS 110-54-3)  
Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

**Directive 94/33/EC on the protection of young people at work, as amended**

n-Hexane (CAS 110-54-3)  
Petroleum Gases, Liquefied Sweetened (CAS 68476-86-8)

**Other regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. Pregnant women should not work with the product, if there is the least risk of exposure. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

**National regulations**

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

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

**List of abbreviations**

Not available.

**References**

Not available.

**Information on evaluation method leading to the classification of mixture**

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

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

R11 Highly flammable.  
R12 Extremely flammable.  
R38 Irritating to skin.  
R45 May cause cancer.  
R46 May cause heritable genetic damage.  
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R60 May impair fertility.  
R61 May cause harm to the unborn child.  
R62 Possible risk of impaired fertility.  
R65 Harmful: may cause lung damage if swallowed.  
R67 Vapours may cause drowsiness and dizziness.  
H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.

**Training information**

Follow training instructions when handling this material.

**Disclaimer**

ITW Pro Brands 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.