



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® Force 842
Registration number	-
Synonyms	None.
Part Number	02516, M02516
Issue date	26-September-2015
Version number	02
Revision date	18-August-2016
Supersedes date	26-September-2015

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

Identified uses	A fast evaporating dry-film lubricant designed for reducing sliding friction under high loads.
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	http://www.lpslabs.com
e-mail	lpssds@itwprobrands.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

Classification F+;R12, Xn;R48/20, Xi;R36/38, R43-47-67, N;R51/53

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

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

Physical hazards

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

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
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

Irritating to eyes and skin. May cause sensitisation by skin contact. May cause birth defects. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.

Environmental hazards

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Specific hazards

None known.

Main symptoms

May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

2.2. Label elements

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

Contains:

1,2,4-Trimethyl benzene, 2,2-Dimethylbutane, 2,3-Dimethylbutane, 2-Methylpentane, 3-Methylpentane, Aromatic Solvent, Isopropanol, n-Hexane, Rosin based resin, Xylene

Hazard pictograms



Signal word

Danger

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye 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.
P272	Contaminated work clothing should not be allowed out of the workplace.
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.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER/doctor if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

P403 + P233
P405
P410 + P412

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
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
2-Methylpentane	20 - 30	107-83-5 203-523-4	-	601-007-00-7	
Classification:		DSD: F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
Isopropanol	20 - 30	67-63-0 200-661-7	-	603-117-00-0	
Classification:		DSD: F;R11, Xi;R36, R67			
		CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336			
Petroleum Gases, Liquefied, Sweetened	20 - 30	68476-86-8 270-705-8	-	649-203-00-1	
Classification:		DSD: F+;R12, Carc. Cat. 1;R45, Muta. Cat. 2;R46			K,S
		CLP: Muta. 1B;H340, Carc. 1A;H350			K,S,U
2,3-Dimethylbutane	5 - 10	79-29-8 201-193-6	-	601-007-00-7	
Classification:		DSD: F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
3-Methylpentane	5 - 10	96-14-0 202-481-4	-	601-007-00-7	
Classification:		DSD: F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		CLP: 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 - 5	75-83-2 200-906-8	-	601-007-00-7	
Classification:		DSD: F;R11, Xn;R65, Xi;R38, R67, N;R51/53			C
		CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411			C
1,2,4-Trimethyl benzene	1 - 3	95-63-6 202-436-9	-	601-043-00-3	#
Classification:		DSD: R10, Xn;R20, Xi;R36/37/38, N;R51/53			
		CLP: Flam. Liq. 3;H226, Skin Irrit. 2;H315, Eye Irrit. 2;H319, Acute Tox. 4;H332, STOT SE 3;H335, Aquatic Chronic 2;H411			

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Aromatic Solvent	1 - 3	64742-95-6 265-199-0	-	649-356-00-4	Note P
Classification:		DSD: Carc. Cat. 2;R45, Muta. Cat. 2;R46, Xn;R65			P
		CLP: Asp. Tox. 1;H304, Acute Tox. 4;H312, Acute Tox. 3;H331, Muta. 1B;H340, Carc. 1B;H350			P
n-Hexane	1 - 3	110-54-3 203-777-6	-	601-037-00-0	#
Classification:		DSD: F;R11, Repr. Cat. 3;R62, Xn;R65-48/20, Xi;R38, R67, N;R51/53			
		CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, STOT RE 2;H373, Aquatic Chronic 2;H411			
Rosin based resin	0,1 - 1	8050-09-7 232-475-7	-	650-015-00-7	
Classification:		DSD: R43			
		CLP: Acute Tox. 4;H302, Skin Sens. 1;H317			
Xylene	< 1	1330-20-7 215-535-7	-	601-022-00-9	#
Classification:		DSD: R10, Xn;R20/21, Xi;R38			C
		CLP: Flam. Liq. 3;H226, Acute Tox. 4;H312, Skin Irrit. 2;H315, Acute Tox. 4;H332, Aquatic Chronic 2;H411			C

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

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

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

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

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

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

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. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

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

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control centre. Rinse mouth.
4.2. Most important symptoms and effects, both acute and delayed	May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. 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	Alcohol resistant foam. Powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Prevent product from entering drains. 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.
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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
1,2,4-Trimethyl benzene (CAS 95-63-6)	MAK	100 mg/m ³
	STEL	20 ppm 150 mg/m ³ 30 ppm
2,2-dimethylbutane (CAS 75-83-2)	MAK	715 mg/m ³
	STEL	200 ppm 2860 mg/m ³ 800 ppm
2,3-Dimethylbutane (CAS 79-29-8)	MAK	715 mg/m ³
	STEL	200 ppm 2860 mg/m ³ 800 ppm
2-Methylpentane (CAS 107-83-5)	MAK	715 mg/m ³
	STEL	200 ppm 2860 mg/m ³ 800 ppm
3-Methylpentane (CAS 96-14-0)	MAK	715 mg/m ³
	STEL	200 ppm 2860 mg/m ³ 800 ppm
Isopropanol (CAS 67-63-0)	MAK	500 mg/m ³ 200 ppm
	STEL	2000 mg/m ³ 800 ppm
n-Hexane (CAS 110-54-3)	MAK	72 mg/m ³ 20 ppm
	STEL	288 mg/m ³ 80 ppm
Xylene (CAS 1330-20-7)	MAK	221 mg/m ³ 50 ppm
	STEL	442 mg/m ³ 100 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m ³ 400 ppm
	TWA	500 mg/m ³ 200 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m ³ 20 ppm
	STEL	442 mg/m ³ 100 ppm
Xylene (CAS 1330-20-7)	TWA	221 mg/m ³ 50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	980 mg/m3
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
		20 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Type	Value	Form
1,2,4-Trimethyl benzene (CAS 95-63-6)	MAC	100 mg/m3	
		20 ppm	
Isopropanol (CAS 67-63-0)	MAC	999 mg/m3	
		400 ppm	
	STEL	1250 mg/m3	
n-Hexane (CAS 110-54-3)	MAC	500 ppm	
		72 mg/m3	
Rosin based resin (CAS 8050-09-7)	MAC	0,05 mg/m3	Fume.
	STEL	0,15 mg/m3	Fume.
Xylene (CAS 1330-20-7)	MAC	221 mg/m3	
		50 ppm	
	STEL	442 mg/m3 100 ppm	

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

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

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
1,2,4-Trimethyl benzene (CAS 95-63-6)	Ceiling	250 mg/m3	
	TWA	100 mg/m3	
Isopropanol (CAS 67-63-0)	Ceiling	1000 mg/m3	
	TWA	500 mg/m3	
n-Hexane (CAS 110-54-3)	Ceiling	200 mg/m3	
	TWA	70 mg/m3	
Rosin based resin (CAS 8050-09-7)	TWA	1 mg/m3	Dust and fume.
Xylene (CAS 1330-20-7)	Ceiling	400 mg/m3	
	TWA	200 mg/m3	

Denmark. Exposure Limit Values

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TLV	100 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	TLV	490 mg/m3
		200 ppm
n-Hexane (CAS 110-54-3)	TLV	72 mg/m3
		20 ppm
Xylene (CAS 1330-20-7)	TLV	109 mg/m3
		25 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m ³
		20 ppm
Isopropanol (CAS 67-63-0)	STEL	600 mg/m ³
	TWA	250 ppm 350 mg/m ³
n-Hexane (CAS 110-54-3)	TWA	150 ppm 72 mg/m ³
		20 ppm
Xylene (CAS 1330-20-7)	STEL	450 mg/m ³
	TWA	100 ppm 200 mg/m ³ 50 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m ³
		20 ppm
2,2-dimethylbutane (CAS 75-83-2)	STEL	2300 mg/m ³
	TWA	630 ppm 1800 mg/m ³ 500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	STEL	2300 mg/m ³
	TWA	630 ppm 1800 mg/m ³ 500 ppm
2-Methylpentane (CAS 107-83-5)	STEL	2300 mg/m ³
	TWA	630 ppm 1800 mg/m ³ 500 ppm
3-Methylpentane (CAS 96-14-0)	STEL	2300 mg/m ³
	TWA	630 ppm 1800 mg/m ³ 500 ppm
Isopropanol (CAS 67-63-0)	STEL	620 mg/m ³
	TWA	250 ppm 500 mg/m ³ 200 ppm
n-Hexane (CAS 110-54-3)	STEL	2300 mg/m ³
	TWA	630 ppm 72 mg/m ³ 20 ppm
Xylene (CAS 1330-20-7)	STEL	440 mg/m ³
	TWA	100 ppm 220 mg/m ³ 50 ppm

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

Components	Type	Value	Form
1,2,4-Trimethyl benzene (CAS 95-63-6)	VLE	250 mg/m ³	
	VME	50 ppm 100 mg/m ³	
Isopropanol (CAS 67-63-0)	VLE	20 ppm 980 mg/m ³ 400 ppm	
	VLE	1500 mg/m ³	Vapor.
n-Hexane (CAS 110-54-3)	VME	72 mg/m ³	

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

Components	Type	Value	Form
Xylene (CAS 1330-20-7)	VLE	20 ppm	
		442 mg/m3	
	VME	100 ppm	
		221 mg/m3	
		50 ppm	

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
2,2-dimethylbutane (CAS 75-83-2)	TWA	20 ppm
		1800 mg/m3
2,3-Dimethylbutane (CAS 79-29-8)	TWA	500 ppm
		1800 mg/m3
2-Methylpentane (CAS 107-83-5)	TWA	500 ppm
		1800 mg/m3
3-Methylpentane (CAS 96-14-0)	TWA	500 ppm
		1800 mg/m3
Isopropanol (CAS 67-63-0)	TWA	500 ppm
		500 mg/m3
n-Hexane (CAS 110-54-3)	TWA	200 ppm
		180 mg/m3
Xylene (CAS 1330-20-7)	TWA	50 ppm
		440 mg/m3
		100 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	AGW	100 mg/m3
2,2-dimethylbutane (CAS 75-83-2)	AGW	20 ppm
		1800 mg/m3
2,3-Dimethylbutane (CAS 79-29-8)	AGW	500 ppm
		1800 mg/m3
2-Methylpentane (CAS 107-83-5)	AGW	500 ppm
		1800 mg/m3
3-Methylpentane (CAS 96-14-0)	AGW	500 ppm
		1800 mg/m3
Isopropanol (CAS 67-63-0)	AGW	500 ppm
		500 mg/m3
n-Hexane (CAS 110-54-3)	AGW	200 ppm
		180 mg/m3
Xylene (CAS 1330-20-7)	AGW	50 ppm
		440 mg/m3
		100 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	125 mg/m3
Isopropanol (CAS 67-63-0)	STEL	25 ppm
		1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3

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

Components	Type	Value
Xylene (CAS 1330-20-7)	STEL	20 ppm
		650 mg/m3
	TWA	150 ppm
		435 mg/m3
		100 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	STEL	2000 mg/m3
	TWA	500 mg/m3
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	221 mg/m3

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	TWA	20 ppm
		490 mg/m3
		200 ppm
n-Hexane (CAS 110-54-3)	TWA	90 mg/m3
		25 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	100 ppm
		109 mg/m3
		25 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	STEL	20 ppm
		400 ppm
		200 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
		20 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	100 ppm
		221 mg/m3
		50 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
2,2-dimethylbutane (CAS 75-83-2)	STEL	20 ppm
		1000 ppm
2,3-Dimethylbutane (CAS 79-29-8)	TWA	500 ppm
	STEL	1000 ppm
2-Methylpentane (CAS 107-83-5)	TWA	500 ppm
	STEL	1000 ppm
3-Methylpentane (CAS 96-14-0)	TWA	500 ppm
	STEL	1000 ppm
Isopropanol (CAS 67-63-0)	TWA	500 ppm
	STEL	400 ppm
	TWA	200 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
		20 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3 20 ppm
	STEL	600 mg/m3
Isopropanol (CAS 67-63-0)	TWA	350 mg/m3
	STEL	300 mg/m3
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm
	TWA	4 mg/m3
Rosin based resin (CAS 8050-09-7)	TWA	4 mg/m3
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	600 mg/m3 250 ppm
	TWA	350 mg/m3 150 ppm
	TWA	72 mg/m3 20 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm
	STEL	450 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	TWA	200 mg/m3 50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3 20 ppm
	TWA	72 mg/m3 20 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm
	STEL	442 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	TWA	221 mg/m3 50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3 20 ppm
	TWA	72 mg/m3 20 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm
	STEL	442 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	TWA	221 mg/m3 50 ppm

Netherlands. OELs (binding)

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	STEL	200 mg/m3

Netherlands. OELs (binding)

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	100 mg/m3
	STEL	144 mg/m3
Xylene (CAS 1330-20-7)	TWA	72 mg/m3
	STEL	442 mg/m3
	TWA	210 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TLV	100 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	TLV	245 mg/m3
		100 ppm
n-Hexane (CAS 110-54-3)	TLV	72 mg/m3
		20 ppm
Xylene (CAS 1330-20-7)	TLV	108 mg/m3
		25 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	STEL	170 mg/m3
	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	STEL	1200 mg/m3
	TWA	900 mg/m3
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
Xylene (CAS 1330-20-7)	TWA	100 mg/m3

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
		20 ppm
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3
		20 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3
		50 ppm

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

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	STEL	500 mg/m3
		203 ppm
	TWA	200 mg/m3
n-Hexane (CAS 110-54-3)		81 ppm
	TWA	72 mg/m3
Rosin based resin (CAS 8050-09-7)		20 ppm
	TWA	0,1 mg/m3
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3

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

Components	Type	Value
		50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	STEL	20 ppm
		1000 mg/m3
	TWA	400 ppm
		500 mg/m3
n-Hexane (CAS 110-54-3)	STEL	200 ppm
		140 mg/m3
	TWA	40 ppm
		72 mg/m3
Xylene (CAS 1330-20-7)	STEL	20 ppm
		442 mg/m3
	TWA	100 ppm
		221 mg/m3
		50 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
2,2-dimethylbutane (CAS 75-83-2)	TWA	20 ppm
		720 mg/m3
2,3-Dimethylbutane (CAS 79-29-8)	TWA	200 ppm
		720 mg/m3
2-Methylpentane (CAS 107-83-5)	TWA	200 ppm
		720 mg/m3
3-Methylpentane (CAS 96-14-0)	TWA	200 ppm
		720 mg/m3
Isopropanol (CAS 67-63-0)	TWA	200 ppm
		500 mg/m3
n-Hexane (CAS 110-54-3)	TWA	200 ppm
		72 mg/m3
Xylene (CAS 1330-20-7)	TWA	20 ppm
		221 mg/m3
		50 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3
Isopropanol (CAS 67-63-0)	STEL	20 ppm
		1000 mg/m3
	TWA	400 ppm
		500 mg/m3
n-Hexane (CAS 110-54-3)	TWA	200 ppm
		72 mg/m3
Xylene (CAS 1330-20-7)	STEL	20 ppm
		442 mg/m3
	TWA	100 ppm
		221 mg/m3
		50 ppm

Sweden. Occupational Exposure Limit Values

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	STEL	170 mg/m3

Sweden. Occupational Exposure Limit Values

Components	Type	Value
2,2-dimethylbutane (CAS 75-83-2)	TWA	35 ppm 120 mg/m3
	STEL	25 ppm 1100 mg/m3
2,3-Dimethylbutane (CAS 79-29-8)	TWA	300 ppm 700 mg/m3
	STEL	200 ppm 1100 mg/m3
2-Methylpentane (CAS 107-83-5)	TWA	300 ppm 700 mg/m3
	STEL	200 ppm 1100 mg/m3
3-Methylpentane (CAS 96-14-0)	TWA	300 ppm 700 mg/m3
	STEL	200 ppm 1100 mg/m3
Isopropanol (CAS 67-63-0)	TWA	300 ppm 700 mg/m3
	STEL	200 ppm 600 mg/m3
n-Hexane (CAS 110-54-3)	TWA	250 ppm 350 mg/m3
	STEL	150 ppm 180 mg/m3
Xylene (CAS 1330-20-7)	TWA	50 ppm 90 mg/m3
	Ceiling	25 ppm 442 mg/m3
	TWA	100 ppm 221 mg/m3
		50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
2,2-dimethylbutane (CAS 75-83-2)	STEL	3600 mg/m3
	TWA	1000 ppm 1800 mg/m3
2,3-Dimethylbutane (CAS 79-29-8)	STEL	500 ppm 3600 mg/m3
	TWA	1000 ppm 1800 mg/m3
2-Methylpentane (CAS 107-83-5)	STEL	500 ppm 3600 mg/m3
	TWA	1000 ppm 1800 mg/m3
3-Methylpentane (CAS 96-14-0)	STEL	500 ppm 3600 mg/m3
	TWA	1000 ppm 1800 mg/m3
Isopropanol (CAS 67-63-0)	STEL	500 ppm 1000 mg/m3
	TWA	400 ppm 500 mg/m3
n-Hexane (CAS 110-54-3)	STEL	200 ppm 1440 mg/m3
		400 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
Xylene (CAS 1330-20-7)	TWA	180 mg/m3 50 ppm
	STEL	870 mg/m3 200 ppm
	TWA	435 mg/m3 100 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Isopropanol (CAS 67-63-0)	STEL	1250 mg/m3 500 ppm	
	TWA	999 mg/m3 400 ppm	
	TWA	72 mg/m3 20 ppm	
Rosin based resin (CAS 8050-09-7)	STEL	0,15 mg/m3	Fume.
Xylene (CAS 1330-20-7)	TWA	0,05 mg/m3	Fume.
	STEL	441 mg/m3 100 ppm	
	TWA	220 mg/m3 50 ppm	

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

Components	Type	Value
1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	100 mg/m3 20 ppm
	TWA	72 mg/m3 20 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Value	Determinant	Specimen	Sampling time
Isopropanol (CAS 67-63-0)	50 mg/l	Acetone	Blood	*
	50 mg/l	Acetone	Urine	*
n-Hexane (CAS 110-54-3)	150 µg/l	n-Hexane	Blood	*
	5,3 mg/g	2,5-Hexanedione	Creatinine in urine	*
	5,25 mmol/mol	2,5-Hexanedione	Creatinine in urine	*
	40 ppm	n-Hexane	End-exhaled air	*
	1,74 µmol/l	n-Hexane	Blood	*
	1,66 µmol/l	n-Hexane	End-exhaled air	*
Xylene (CAS 1330-20-7)	1,5 g/g	Methylhippuric acids	Creatinine in blood	*
	1,5 mg/l	Xylene	Blood	*
	0,88 mol/mol	Methylhippuric acids	Creatinine in blood	*
	14,13 µmol/l	Xylene	Blood	*

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

Czech Republic. Limit Values for Indicators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling time
Xylene (CAS 1330-20-7)	820 µmol/mmol	Methylhippuric acids	Creatinine in urine	*

Czech Republic. Limit Values for Indicators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling time
	1400 mg/g	Methylhippuric acids	Creatinine in urine	*

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

Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV) , Social Affairs and Ministry of Health

Components	Value	Determinant	Specimen	Sampling time
Xylene (CAS 1330-20-7)	5 mmol/l	Methylhippuric acids	Urine	*

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

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

Components	Value	Determinant	Specimen	Sampling time
n-Hexane (CAS 110-54-3)	5 mg/g	2,5-Hexanedione	Creatinine in urine	*
Xylene (CAS 1330-20-7)	1500 mg/g	Acides méthylhippuriques	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
1,2,4-Trimethyl benzene (CAS 95-63-6)	400 mg/g	Dimethylbenzoesäuren (Summe aller Isomeren nach Hydrolyse)	Creatinine in urine	*
Isopropanol (CAS 67-63-0)	25 mg/l	Aceton	Blood	*
	25 mg/l	Aceton	Urine	*
n-Hexane (CAS 110-54-3)	5 mg/l	2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon (nach Hydrolyse)	Urine	*
Xylene (CAS 1330-20-7)	2000 mg/l	Methylhippur-(Tolur-) säure (alle Isomere)	Urine	*
	1,5 mg/l	Xylol	Blood	*

* - 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	*
Xylene (CAS 1330-20-7)	1500 mg/g	methyl hippuric acids	Creatinine in urine	*
	860 µmol/mmol	methyl hippuric acids	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	*
Xylene (CAS 1330-20-7)	1334 mg/g	Methylhippuric acids	Creatinine in urine	*

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
	2000 mg/l	Methylhippuric acids	Urine	*
	1,5 mg/l	Xylene	Blood	*

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

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

Components	Value	Determinant	Specimen	Sampling time
Isopropanol (CAS 67-63-0)	40 mg/l	Acetona	Urine	*
n-Hexane (CAS 110-54-3)	0,2 mg/l	2,5-Hexandiona, sin hidrólisis	Urine	*
Xylene (CAS 1330-20-7)	1 g/g	Ácidos metilhipúricos	Creatinine in urine	*

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

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

Components	Value	Determinant	Specimen	Sampling time
Isopropanol (CAS 67-63-0)	25 mg/l	Aceton	Blood	*
	25 mg/l	Aceton	Urine	*
n-Hexane (CAS 110-54-3)	5 mg/l	2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon	Urine	*
Xylene (CAS 1330-20-7)	1,5 g/g	Methyl-Hippursäure	Creatinine in urine	*
	1,5 mg/l	Xylol	Blood	*

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

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling time
Xylene (CAS 1330-20-7)	650 mmol/mol	Methyl hippuric acid	Creatinine in urine	*

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

EU Exposure Limit Values: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

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

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures	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. Contaminated work clothing should not be allowed out of the workplace.
Environmental exposure controls	Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Gas.
Form	Aerosol
Colour	Dark grey. Black.
Odour	Characteristic.
Odour threshold	Not established
pH	Not applicable
Melting point/freezing point	Not established
Initial boiling point and boiling range	61 °C (141,8 °F)
Flash point	< -17,0 °C (< 1,4 °F) Tag closed cup (dispensed liquid)
Evaporation rate	< 1 (Ethyl Ether = 1)
Flammability (solid, gas)	Flammable gas.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0,6 %
Flammability limit - upper (%)	7 %
Vapour pressure	352,53 mm Hg @ 38°C
Vapour density	~3
Relative density	0,74 - 0,76 @ 20°C
Solubility(ies)	
Solubility (water)	< 25 % by weight
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	> 1
Auto-ignition temperature	306 °C (582,8 °F)
Decomposition temperature	Not established
Viscosity	< 14 cSt
Viscosity temperature	25 °C (77 °F)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Heat of combustion	> 30 kJ/g
VOC	95 % per US State and Federal Consumer Product Regulations (excluding compounds exempted by US EPA)

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms

May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test results
1,2,4-Trimethyl benzene (CAS 95-63-6)		
Acute		
Dermal		
LD50	Rabbit	> 3160 mg/kg
Inhalation		
LC50	Rat	10200 mg/m ³ , 4 Hours
Oral		
LD50	Rat	3280 mg/kg
Aromatic Solvent (CAS 64742-95-6)		
Acute		
Dermal		
LD50	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation		
<i>Vapour</i>		
LC50	Rat	> 4980 mg/m ³ , 4 Hours
Oral		
LD50	Rat	4820 mg/kg
Isopropanol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	16,4 ml/kg, 24 Hours
Oral		
LD50	Rat	4,7 g/kg
n-Hexane (CAS 110-54-3)		
Acute		
Dermal		
LD50	Rabbit	> 5 ml/kg, 4 Hours
Inhalation		
<i>Vapour</i>		
LC50	Rat	73860 ppm, 4 Hours
Oral		
LD50	Rat	49 ml/kg
Rosin based resin (CAS 8050-09-7)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 1000 mg/kg

Components	Species	Test results
Xylene (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 5000 ml/kg, 4 Hours
Inhalation		
<i>Vapour</i>		
LC50	Rat	6700 ppm, 4 Hours
Oral		
LD50	Rat	10 ml/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	Not a respiratory sensitizer.	
Skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
ACGIH Carcinogens		
Isopropanol (CAS 67-63-0)	Not classifiable as a human carcinogen. A4	
Xylene (CAS 1330-20-7)	Not classifiable as a human carcinogen. A4	
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)		
Aromatic Solvent (CAS 64742-95-6)		
Petroleum Gases, Liquefied, Sweetened (CAS 68476-86-8)		
IARC Monographs. Overall Evaluation of Carcinogenicity		
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)		
n-Hexane (CAS 110-54-3)	Toxic for reproduction - category 2.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.	
Aspiration hazard	Not likely, due to the form of the product.	
Mixture versus substance information	No information available.	
Other information	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
1,2,4-Trimethyl benzene (CAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 7,19 - 8,28 mg/l, 96 hours
Isopropanol (CAS 67-63-0)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours
n-Hexane (CAS 110-54-3)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 2,101 - 2,981 mg/l, 96 hours
Xylene (CAS 1330-20-7)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 7,711 - 9,591 mg/l, 96 hours
12.2. Persistence and degradability	Not inherently biodegradable.	

12.3. Bioaccumulative potential

Partition coefficient

n-octanol/water (log Kow)

LPS® Force 842	> 1
2,2-Dimethylbutane	3,82
2,3-Dimethylbutane	3,42
2-Methylpentane	3,74
3-Methylpentane	3,6
Isopropanol	0,05
n-Hexane	3,9
Xylene	3,12 - 3,2

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

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	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	2 (D)
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
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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.

Other information

Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

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

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

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)
Aromatic Solvent (CAS 64742-95-6)

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

Aromatic Solvent (CAS 64742-95-6)
Petroleum Gases, Liquefied, Sweetened (CAS 68476-86-8)

Other EU regulations

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

1,2,4-Trimethyl benzene (CAS 95-63-6)
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)
Isopropanol (CAS 67-63-0)
n-Hexane (CAS 110-54-3)
Petroleum Gases, Liquefied, Sweetened (CAS 68476-86-8)
Xylene (CAS 1330-20-7)

Other regulations

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

National regulations

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

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

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

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

R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R43 May cause sensitisation by skin contact.
R45 May cause cancer.

R46 May cause heritable genetic damage.
R47 May cause birth defects.
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.
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.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory 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

Training information

Disclaimer

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

Follow training instructions when handling this material.

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