

SAFETY DATA SHEET

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

Product identifier

Trade name or designation of the mixture 216 TR Liquid Wax

Registration number -

Synonyms None.

Date of first issue 30-March-2011

Version number 01

Revision date -

Supersedes date -

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

Identified uses Liquid wax.

Uses advised against None known.

Details of the supplier of the safety data sheet

Supplier

Company name TR Industries
Address 11022 Vulcan Street
South Gate, CA 90280-0893
United States
Telephone: (562) 923-5438
Contact person Not available.
CHEMTREC: (800) 424-9300
CHEMTREC International 00 1-703-527-3887

Section 2: Hazards identification

Classification of the substance or mixture

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

Classification F;R11, Xn;R65-48/20, Xi;R36/38, R67, N;R51/53

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

Physical hazards

Flammable liquids	Category 2	Highly flammable liquid and vapour.
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Health hazards

Skin corrosion/irritation	Category 2	Causes skin irritation.
Serious eye damage/eye irritation	Category 2	Causes serious eye irritation.
Reproductive toxicity	Category 2	Suspected of damaging the unborn child.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Category 2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Category 1	May be fatal if swallowed and enters airways.

Environmental hazards

Hazardous to the aquatic environment - long-term hazard	Category 2	Toxic to aquatic life with long lasting effects.
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Hazard summary

Physical hazards Highly flammable.

Health hazards	Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards	Not available.
Main symptoms	Irritant effects. Central nervous system depression.

Label elements

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

Contains: 1,2,4-Trimethyl benzene, Isopropyl alcohol, Solvent naphtha (petroleum), light aromatic, Toluene



Signal word Danger

Hazard statements Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ground/bond container and receiving equipment. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. Avoid breathing gas/mist/vapours/spray.

Response In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction. Collect spillage. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Storage Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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

Supplemental label information None.

Other hazards Not assigned.

Section 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Toluene	45 - 80	108-88-3 203-625-9	-	601-021-00-3	#
Classification:	DSD:	F;R11, Repr. Cat. 3;R63, Xn;R65-48/20, Xi;R38, R67			
	CLP:	Flam. Liq. 2;H225, Asp. Tox. 1;H304, Acute Tox. 1;H310, Skin Irrit. 2;H315, STOT SE 3;H336, Repr. 2;H361d, STOT RE 2;H373, Aquatic Chronic 2;H411			
Solvent naphtha (petroleum), light aromatic	15 - 20	64742-95-6 265-199-0	-	649-356-00-4	#
Classification:	DSD:	R10, Xn;R65, Xi;R38, R67, N;R51/53			
	CLP:	Flam. Liq. 3;H226, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H335, Aquatic Chronic 2;H411			
Isopropyl alcohol	0 - 20	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			

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
1,2,4-Trimethyl benzene	5 - 10	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			
Stoddard solvent	5 - 10	8052-41-3 232-489-3	-	649-345-00-4	#
Classification:	DSD:	R10, Xn;R65			
	CLP:	Flam. Liq. 3;H226, Asp. Tox. 1;H304			
Xylene	<0,5	1330-20-7 215-535-7	-	601-022-00-9	#
Classification:	DSD:	R10, Xn;R20/21, Xi;R38			
	CLP:	Flam. Liq. 3;H226, Acute Tox. 4;H312, Skin Irrit. 2;H315, Acute Tox. 4;H332			
Ethylbenzene	<0,05	100-41-4 202-849-4	-	601-023-00-4	#
Classification:	DSD:	F;R11, Xn;R20			
	CLP:	Flam. Liq. 2;H225, Acute Tox. 4;H332			

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

Composition comments The full text for all R- and H-phrases is displayed in section 16. Components not listed are either non-hazardous or are below reportable limits. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Section 4: First aid measures

General information Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. 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.

Description of first aid measures

Inhalation Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Get medical attention.

Ingestion DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed Irritant effects. Central nervous system depression. May cause abdominal pain with vomiting, nausea, diarrhoea, or dizziness.

Indication of any immediate medical attention and special treatment needed Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Section 5: Firefighting measures

General fire hazards The product is highly flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.

Extinguishing media

Suitable extinguishing media Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture Vapors may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

Special firefighting procedures

Containers should be cooled with water to prevent vapor pressure build up. Cool containers exposed to flames with water until well after the fire is out. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Some of these materials, if spilled, may evaporate leaving a flammable residue.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

See Section 8 for personal protective equipment.

For emergency responders

Keep unnecessary personnel away.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods and material for containment and cleaning up

Remove sources of ignition. Should not be released into the environment. Prevent entry into waterways, sewers, basements or confined areas.

Large Spills: Cover with plastic sheet to prevent spreading. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Following product recovery, flush area with water.

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

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste.

Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling

Keep away from heat and sources of ignition. Avoid breathing mist or vapour. Avoid contact with eyes, skin, and clothing. Use Personal Protective Equipment recommended in section 8 of the MSDS. When using, do not eat, drink or smoke. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Keep in a well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

Specific end use(s)

Not available.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Austria. MAK List

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	MAK	100 mg/m ³
		20 ppm
	STEL	30 ppm
Ethylbenzene (100-41-4)	Ceiling	150 mg/m ³
		880 mg/m ³
	MAK	200 ppm
Isopropyl alcohol (67-63-0)		100 ppm
		440 mg/m ³
	MAK	200 ppm
Toluene (108-88-3)		500 mg/m ³
	STEL	2000 mg/m ³
		800 ppm
Xylene (1330-20-7)	MAK	50 ppm
		190 mg/m ³
	STEL	380 mg/m ³
	100 ppm	
	MAK	50 ppm
		221 mg/m ³
	STEL	442 mg/m ³
		100 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
Ethylbenzene (100-41-4)	STEL	100 mg/m3
		125 ppm
		551 mg/m3
Isopropyl alcohol (67-63-0)	TWA	100 ppm
		442 mg/m3
		1000 mg/m3
Stoddard solvent (8052-41-3)	STEL	400 ppm
		500 mg/m3
		200 ppm
Toluene (108-88-3)	TWA	100 ppm
		384 mg/m3
		192 mg/m3
Xylene (1330-20-7)	STEL	50 ppm
		100 ppm
		442 mg/m3
	TWA	221 mg/m3
		50 ppm

Bulgaria. OELs. Regulation No 13 of Ministry of Labor & Social Policy, with Ministry of Health, on protection of workers related to exposure to chemical agents at work

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	100 mg/m3
Ethylbenzene (100-41-4)	STEL	545 mg/m3
		435 mg/m3
Isopropyl alcohol (67-63-0)	STEL	1225 mg/m3
		980 mg/m3
Toluene (108-88-3)	STEL	300 mg/m3
		150 mg/m3
Xylene (1330-20-7)	STEL	442 mg/m3
		221 mg/m3

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

Components	Type	Value
Isopropyl alcohol (67-63-0)	TWA	400 ppm
		980 mg/m3
Toluene (108-88-3)	TWA	375 mg/m3
		100 ppm
Xylene (1330-20-7)	TWA	100 ppm
		435 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	
1,2,4-Trimethyl benzene (95-63-6)	Ceiling	250 mg/m3	
Ethylbenzene (100-41-4)	TWA	100 mg/m3	
		Ceiling	500 mg/m3
		TWA	200 mg/m3
Isopropyl alcohol (67-63-0)	Ceiling	1000 mg/m3	
		TWA	500 mg/m3
Toluene (108-88-3)	Ceiling	500 mg/m3	
		TWA	200 mg/m3
Xylene (1330-20-7)	Ceiling	400 mg/m3	
		TWA	200 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TLV	20 ppm
Ethylbenzene (100-41-4)	TLV	100 mg/m3
		50 ppm
		217 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
Isopropyl alcohol (67-63-0)	TLV	490 mg/m ³
		200 ppm
Stoddard solvent (8052-41-3)	TLV	145 mg/m ³
		25 ppm
Toluene (108-88-3)	TLV	94 mg/m ³
		25 ppm
Xylene (1330-20-7)	TLV	25 ppm
		109 mg/m ³

Estonia. OELs. Occupational Exposure Limit Values for Hazardous Substances (Minister of Social Affairs Regulation No. 57)

Components	Type	Value
Ethylbenzene (100-41-4)	STEL	200 ppm
		884 mg/m ³
	TWA	442 mg/m ³
		100 ppm
Isopropyl alcohol (67-63-0)	STEL	250 ppm
		600 mg/m ³
	TWA	350 mg/m ³
		150 ppm
Stoddard solvent (8052-41-3)	STEL	100 ppm
		600 mg/m ³
	TWA	50 ppm
		300 mg/m ³
Toluene (108-88-3)	STEL	100 ppm
		400 mg/m ³
	TWA	200 mg/m ³
		50 ppm
Xylene (1330-20-7)	STEL	100 ppm
		450 mg/m ³
	TWA	200 mg/m ³
		50 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
Ethylbenzene (100-41-4)	STEL	100 mg/m ³
		880 mg/m ³
	TWA	200 ppm
		50 ppm
Isopropyl alcohol (67-63-0)	STEL	220 mg/m ³
		250 ppm
	TWA	620 mg/m ³
		200 ppm
Solvent naphtha (petroleum), light aromatic (64742-95-6)	TWA	500 mg/m ³
		100 mg/m ³
Toluene (108-88-3)	STEL	380 mg/m ³
		100 ppm
	TWA	81 mg/m ³
		25 ppm
Xylene (1330-20-7)	STEL	110 ppm
		440 mg/m ³
	TWA	50 ppm
		220 mg/m ³

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	VLE	250 mg/m ³
		50 ppm
	VME	20 ppm
		100 mg/m ³

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

Components	Type	Value
Ethylbenzene (100-41-4)	VLE	442 mg/m ³ 100 ppm
	VME	20 ppm 88,4 mg/m ³
Isopropyl alcohol (67-63-0)	VLE	400 ppm 980 mg/m ³
	VME	384 mg/m ³ 100 ppm
Toluene (108-88-3)	VLE	192 mg/m ³ 50 ppm
	VME	100 ppm 442 mg/m ³
Xylene (1330-20-7)	VLE	50 ppm 221 mg/m ³
	VME	100 ppm 442 mg/m ³

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	AGW	100 mg/m ³ 20 ppm
	AGW	440 mg/m ³ 100 ppm
Isopropyl alcohol (67-63-0)	AGW	500 mg/m ³ 200 ppm
	AGW	50 ppm 190 mg/m ³
Xylene (1330-20-7)	AGW	440 mg/m ³ 100 ppm

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	125 mg/m ³ 25 ppm
	STEL	125 ppm 545 mg/m ³
Isopropyl alcohol (67-63-0)	TWA	435 mg/m ³ 100 ppm
	STEL	500 ppm 1225 mg/m ³
Stoddard solvent (8052-41-3)	TWA	980 mg/m ³ 400 ppm
	STEL	125 ppm 720 mg/m ³
Toluene (108-88-3)	TWA	100 ppm 575 mg/m ³
	STEL	150 ppm 560 mg/m ³
Xylene (1330-20-7)	TWA	375 mg/m ³ 100 ppm
	STEL	650 mg/m ³ 150 ppm
	TWA	100 ppm 435 mg/m ³

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	100 mg/m ³
Ethylbenzene (100-41-4)	STEL	884 mg/m ³
	TWA	442 mg/m ³
Isopropyl alcohol (67-63-0)	STEL	2000 mg/m ³
	TWA	500 mg/m ³
Toluene (108-88-3)	STEL	380 mg/m ³
	TWA	190 mg/m ³
Xylene (1330-20-7)	STEL	442 mg/m ³

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
	TWA	221 mg/m3

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	100 mg/m3
Ethylbenzene (100-41-4)	STEL	20 ppm 200 ppm 884 mg/m3
	TWA	50 ppm 200 mg/m3
Isopropyl alcohol (67-63-0)	TWA	200 ppm 490 mg/m3
Stoddard solvent (8052-41-3)	TWA	25 ppm
Toluene (108-88-3)	STEL	145 mg/m3 188 mg/m3
	TWA	50 ppm 94 mg/m3 25 ppm
Xylene (1330-20-7)	STEL	100 ppm 442 mg/m3
	TWA	25 ppm 109 mg/m3

Ireland. Occupational Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	100 mg/m3
Ethylbenzene (100-41-4)	STEL	20 ppm 125 ppm 545 mg/m3
	TWA	100 ppm 435 mg/m3
Isopropyl alcohol (67-63-0)	STEL	400 ppm
	TWA	200 ppm
Stoddard solvent (8052-41-3)	TWA	100 ppm
Toluene (108-88-3)	STEL	573 mg/m3 560 mg/m3
	TWA	100 ppm 188 mg/m3 50 ppm
Xylene (1330-20-7)	STEL	100 ppm 442 mg/m3
	TWA	50 ppm 221 mg/m3

Italy. OELs

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
Ethylbenzene (100-41-4)	STEL	100 mg/m3 884 mg/m3
	TWA	200 ppm 442 mg/m3 100 ppm
Isopropyl alcohol (67-63-0)	STEL	400 ppm
	TWA	200 ppm
Stoddard solvent (8052-41-3)	TWA	100 ppm
Toluene (108-88-3)	TWA	50 ppm 192 mg/m3
Xylene (1330-20-7)	STEL	100 ppm 442 mg/m3
	TWA	50 ppm 221 mg/m3

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
		100 mg/m3
Ethylbenzene (100-41-4)	STEL	200 ppm
		884 mg/m3
	TWA	442 mg/m3
		100 ppm
Isopropyl alcohol (67-63-0)	STEL	600 mg/m3
	TWA	350 mg/m3
Toluene (108-88-3)	STEL	150 mg/m3
	TWA	50 mg/m3
Xylene (1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	50 ppm
		221 mg/m3

Lithuania. OELs. Occupational Exposure Limit Values for Hazardous Chemical Substance Concentration, General Requirements (No. 645/169)

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
		100 mg/m3
Ethylbenzene (100-41-4)	STEL	200 ppm
		884 mg/m3
	TWA	442 mg/m3
		100 ppm
Isopropyl alcohol (67-63-0)	STEL	250 ppm
		600 mg/m3
	TWA	350 mg/m3
		150 ppm
Toluene (108-88-3)	STEL	400 mg/m3
		100 ppm
	TWA	200 mg/m3
		50 ppm
Xylene (1330-20-7)	STEL	100 ppm
		442 mg/m3
	TWA	50 ppm
		221 mg/m3

Luxembourg. OELs

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
		100 mg/m3
Ethylbenzene (100-41-4)	STEL	200 ppm
		884 mg/m3
	TWA	442 mg/m3
		100 ppm
Toluene (108-88-3)	STEL	384 mg/m3
		100 ppm
	TWA	192 mg/m3
		50 ppm
Xylene (1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	50 ppm
		221 mg/m3

Malta. OELs, Binding and Indicative 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 (95-63-6)	TWA	100 mg/m3
		20 ppm
Ethylbenzene (100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	100 ppm
		442 mg/m3

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

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

Netherlands. OELs (binding)

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	STEL	200 mg/m3
	TWA	100 mg/m3
Ethylbenzene (100-41-4)	STEL	430 mg/m3
	TWA	215 mg/m3
Toluene (108-88-3)	STEL	384 mg/m3
	TWA	150 mg/m3
Xylene (1330-20-7)	STEL	442 mg/m3
	TWA	210 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TLV	100 mg/m3
		20 ppm
Ethylbenzene (100-41-4)	TLV	20 mg/m3
		5 ppm
Isopropyl alcohol (67-63-0)	TLV	245 mg/m3
		100 ppm
Toluene (108-88-3)	TLV	25 ppm
		94 mg/m3
Xylene (1330-20-7)	TLV	108 mg/m3
		25 ppm

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	STEL	170 mg/m3
Ethylbenzene (100-41-4)	TWA	100 mg/m3
	STEL	400 mg/m3
Isopropyl alcohol (67-63-0)	TWA	200 mg/m3
	STEL	1200 mg/m3
Stoddard solvent (8052-41-3)	TWA	900 mg/m3
	STEL	900 mg/m3
Toluene (108-88-3)	TWA	300 mg/m3
	STEL	200 mg/m3
Xylene (1330-20-7)	TWA	100 mg/m3
	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 (95-63-6)	TWA	20 ppm	
Ethylbenzene (100-41-4)	STEL	100 mg/m3	
		200 ppm	
		884 mg/m3	
Isopropyl alcohol (67-63-0)	TWA	442 mg/m3	
		100 ppm	
Stoddard solvent (8052-41-3)	STEL	500 ppm	
		TWA	400 ppm
Toluene (108-88-3)	TWA	100 ppm	
Xylene (1330-20-7)	TWA	50 ppm	
		STEL	442 mg/m3
		TWA	100 ppm 50 ppm 221 mg/m3

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

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
		100 mg/m3
Ethylbenzene (100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	100 ppm
Isopropyl alcohol (67-63-0)		442 mg/m3
	STEL	203 ppm
		500 mg/m3
	TWA	200 mg/m3
Stoddard solvent (8052-41-3)	STEL	81 ppm
		1000 mg/m3
Toluene (108-88-3)	TWA	700 mg/m3
	STEL	100 ppm
		384 mg/m3
Xylene (1330-20-7)		192 mg/m3
	TWA	50 ppm
	STEL	100 ppm
		442 mg/m3
	TWA	221 mg/m3
		50 ppm

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	Ceiling	200 mg/m3
	TWA	20 ppm
Ethylbenzene (100-41-4)		100 mg/m3
	Ceiling	884 mg/m3
	TWA	100 ppm
Isopropyl alcohol (67-63-0)		442 mg/m3
	Ceiling	1000 mg/m3
	TWA	200 ppm
		500 mg/m3
Toluene (108-88-3)		384 mg/m3
	Ceiling	50 ppm
	TWA	192 mg/m3
Xylene (1330-20-7)		442 mg/m3
	Ceiling	50 ppm
	TWA	221 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
1,2,4-Trimethyl benzene (95-63-6)	TWA	100 mg/m3
		20 ppm
Ethylbenzene (100-41-4)	TWA	442 mg/m3
		100 ppm
Isopropyl alcohol (67-63-0)	TWA	200 ppm
		500 mg/m3
		100 mg/m3
Solvent naphtha (petroleum), light aromatic (64742-95-6)	TWA	20 ppm
		190 mg/m3
Toluene (108-88-3)	TWA	50 ppm
Xylene (1330-20-7)	TWA	50 ppm
		221 mg/m3

Spain. Occupational Exposure Limits

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	20 ppm
		100 mg/m3

Spain. Occupational Exposure Limits

Components	Type	Value
Ethylbenzene (100-41-4)	STEL	200 ppm 884 mg/m3
	TWA	441 mg/m3
Isopropyl alcohol (67-63-0)	STEL	100 ppm 500 ppm 1250 mg/m3
	TWA	998 mg/m3
Toluene (108-88-3)	STEL	400 ppm 384 mg/m3
	TWA	100 ppm 192 mg/m3
Xylene (1330-20-7)	STEL	50 ppm 100 ppm 442 mg/m3
	TWA	50 ppm 221 mg/m3

Sweden. Occupational Exposure Limit Values

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	STEL	170 mg/m3
	TWA	35 ppm 120 mg/m3
Ethylbenzene (100-41-4)	STEL	25 ppm 100 ppm 450 mg/m3
	TWA	50 ppm
Isopropyl alcohol (67-63-0)	STEL	200 mg/m3 250 ppm 600 mg/m3
	TWA	350 mg/m3
Stoddard solvent (8052-41-3)	STEL	150 ppm 50 ppm
	TWA	300 mg/m3 150 mg/m3
Toluene (108-88-3)	STEL	25 ppm 400 mg/m3
	TWA	100 ppm 200 mg/m3
Xylene (1330-20-7)	STEL	50 ppm 100 ppm 450 mg/m3
	TWA	50 ppm 200 mg/m3

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	STEL	200 mg/m3
	TWA	40 ppm 20 ppm
Ethylbenzene (100-41-4)	STEL	100 mg/m3 435 mg/m3
	TWA	100 ppm 435 mg/m3
Isopropyl alcohol (67-63-0)	STEL	400 ppm 1000 mg/m3
	TWA	500 mg/m3
Toluene (108-88-3)	STEL	200 ppm 200 ppm 760 mg/m3
	TWA	190 mg/m3
Xylene (1330-20-7)	STEL	50 ppm 200 ppm 870 mg/m3

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
	TWA	435 mg/m ³ 100 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
1,2,4-Trimethyl benzene (95-63-6)	TWA	25 ppm
Ethylbenzene (100-41-4)	STEL	125 mg/m ³
		125 ppm
		552 mg/m ³
Isopropyl alcohol (67-63-0)	TWA	441 mg/m ³
		100 ppm
		500 ppm
Toluene (108-88-3)	STEL	1250 mg/m ³
		999 mg/m ³
		400 ppm
Xylene (1330-20-7)	TWA	384 mg/m ³
		100 ppm
		191 mg/m ³
Xylene (1330-20-7)	STEL	50 ppm
		100 ppm
		441 mg/m ³
Xylene (1330-20-7)	TWA	50 ppm
		220 mg/m ³

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

Components	Value	Determinant	Specimen	Sampling time
Ethylbenzene (100-41-4)	5,2 mmol/l	Mandelic acid	Urine	Sampling Date: After shift at the end of the work or the end of the period of exposure.
Toluene (108-88-3)	500 nmol/l	Toluene concentration	Blood	Sampling Date: The morning after the workday.

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

Components	Value	Determinant	Specimen	Sampling time
Ethylbenzene (100-41-4)	1500 mg/g	Acide mandélique	Creatinine in urine	Sampling time: End of shift at end of work week.
Toluene (108-88-3)	1 mg/l	Toluène	Venous blood	Sampling time: End of shift.
	2500 mg/g	Acide hippurique	Creatinine in urine	Sampling time: Last 4 hours of the shift.
Xylene (1330-20-7)	2500 mg/g	Acide hippurique	Creatinine in urine	Sampling time: End of shift.
	1500 mg/g	Acides méthylhippurique	Creatinine in urine	Sampling time: End of shift.

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling time
Xylene (1330-20-7)	650 mmol/mol	Methyl hippuric acid	Creatinine in urine	Sampling time: End of shift.

Recommended monitoring procedures Follow standard monitoring procedures.

DNEL Not available.

PNEC Not available.

Exposure controls

Appropriate engineering controls Use explosion-proof equipment.

Individual protection measures, such as personal protective equipment

General information	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear approved safety glasses or goggles. Wear face shield if there is risk of splashes.
Skin protection	
- Hand protection	Chemical resistant gloves are recommended.
- Other	Wear suitable protective clothing and gloves.
Respiratory protection	Wear a CEN approved respirator, with appropriate cartridge or canister, suitable for airborne concentration levels present.
Thermal hazards	Not applicable.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practices. Provide eyewash station and safety shower.
Environmental exposure controls	Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Yellow liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Yellow.
Odour	Solvent odor.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	4 °C (39,2 °F) Closed cup (Toluene)
Auto-ignition temperature	Not applicable.
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	Not available.
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	Not available.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Risk of ignition. Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Heat, flames and sparks. Electrostatic Discharge.
Incompatible materials	Strong oxidising agents. Strong acids. Strong bases.

Hazardous decomposition products Carbon oxides.

Section 11: Toxicological information

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

Information on likely routes of exposure

Ingestion Swallowing of the liquid, or vomiting as a result, may result in aspiration into the lungs.
Inhalation May cause respiratory irritation. May cause central nervous system depression.
Skin contact Causes skin irritation.
Eye contact Causes serious eye irritation.

Symptoms Irritant effects. May cause central nervous system effects.

Information on toxicological effects

Acute toxicity Causes skin, eye and respiratory tract irritation. If aspirated into lungs during swallowing or vomiting, it may cause pulmonary hemorrhage, oedema and possible death.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitisation Not assigned.

Skin sensitisation Not assigned.

Germ cell mutagenicity Not assigned.

Carcinogenicity Contains ethylbenzene, which is classified as an IARC 2B chemical (Possibly Carcinogenic to Humans).

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Stoddard solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard May be harmful if swallowed and enters airways. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

Mixture versus substance information Not available.

Other information No other specific acute or chronic health impact noted.

Section 12: Ecological information

Toxicity

Components	Test results
Toluene (108-88-3)	LC50 Coho salmon, silver salmon (<i>Oncorhynchus kisutch</i>): 5,5 mg/l 96 hours

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility Not available.

Environmental fate - Partition coefficient Not available.

Mobility in soil Not available.

Results of PBT and vPvB assessment Not available.

Other adverse effects Toxic to aquatic life with long lasting effects.

Section 13: Disposal considerations

Waste treatment methods

Residual waste 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	Offer rinsed packaging material to local recycling facilities.
EU waste code	Waste codes should be assigned by the user based on the application for which the product was used. The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Do not incinerate sealed containers. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.

Section 14: Transport information

ADR

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (TOLUENE)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Tunnel restriction code	D/E
Labels required	3
Special precautions for user	Not available.

RID

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (TOLUENE)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Labels required	3
Special precautions for user	Not available.

ADN

UN number	UN1993
UN proper shipping name	Flammable Liquid (Toluene)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Labels required	3
Special precautions for user	Not available.

IATA

UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (Toluene)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
ERG Code	3H
Special precautions for user	Not available.

IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (TOLUENE)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Marine pollutant	Yes
EmS No.	F-E, S-E*
Special precautions for user	Not available.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)

Ethylbenzene (CAS 100-41-4)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

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

Not listed.

Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Not available.
Chemical safety assessment	Not available.

Section 16: Other information

List of abbreviations	DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. CLP: Regulation No. 1272/2008. DSD: Directive 67/548/EEC.
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References	Not available.
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Information on evaluation method leading to the classification of mixture	Not available.
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Full text of any statements or R-phrases and H-phrases under Sections 2 to 15	R10 Flammable. R11 Highly 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. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. R51 Toxic to aquatic organisms. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R53 May cause long-term adverse effects in the aquatic environment. R63 Possible risk of harm to the unborn child. 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. H304 - May be fatal if swallowed and enters airways. H310 - Fatal in contact with skin. H312 - Harmful in contact with skin. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. H361d - Suspected of damaging the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.
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