

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Trade name : SuperFine Metal Marker Red

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Marking.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**Supplier**

North America:

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com

Europe:

LA-CO Industries Europe S.A.S.
Parc Industriel de la Plaine de
l'Ain - Allée des Combes.
01150.BLYES.France.
Phone: +33 (0)4 74 46 23 23
Fax: +33 (0)4 74 46 23 29
E-mail: info@eu.laco.com
Web: http://www.markal.com

1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 Minsk 220115	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245
BULGARIA	Национален токсикологичен информационен център National Clinical Toxicology Centre, Emergency Medical Institute "Pirogov"	21 Tottleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402
DENMARK	Gifflinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240

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GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, Nagyvárad tér 2	+36 80 20 11 99
ICELAND	Eitrunarmiðstöðin	Eitrunarmiðstöðin 108 Reykjavik	+354 543 22 22
IRELAND	National Poisons Information Centre	Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2166
LATVIA	Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs	2 Hipocrate Street LV 1038 Riga	+371 67 04 24 73
LITHUANIA	Apsinuodijimų kontrolės ir informacijos biuras	Siltnamiu 29 2043 Vilnius	+370 5 236 20 52/+370 687 53 378
MALTA	Medicines & Poisons Info Office	Mater Dei Hospital, Msida MSD 2090 Malta	25450000
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, NB this service is only available to health professionals	Huispostnummer B.00.118, PO Box 85500 3508 GA Utrecht	+31 30 274 88 88
PORTUGAL	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica (INEM)	Rua Almirante Barroso, 36 1000-013 Lisboa	808 250 143 (for use only in Portugal), +351 21 330 3284
ROMANIA	Biroul pentru Regulamentul Sanitar International si Informare Toxicologica	Str. Dr. Leonte Anastasievici Nr.1-3, Sector 5 50463 Bucuresti	+40 21 318 36 06
SLOVAKIA	Národné toxikologické informačné centrum University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
SPAIN	Servicio de Información Toxicológica Instituto Nacional de Toxicología, Departamento de Madrid	Calle Luis Cabrera 9 E-28002 Madrid	+34 91 562 04 20
SWEDEN	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND	Centre Suisse d'Information Toxicologique	Freiestrasse 16 Postfach CH-8028 Zurich	+41 44 251 51 51 (International) 145 (National)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Skin corrosion/irritation, Category 2	H315
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity — Repeated exposure, Category 1	H372

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP)	: Danger
Hazardous ingredients	: Ethylbenzene; solvent naphtha (petroleum), medium aliph
Hazard statements (CLP)	: H226 - Flammable liquid and vapour.

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Precautionary statements (CLP)	: H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H351 - Suspected of causing cancer. H372 - Causes damage to organs through prolonged or repeated exposure. 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. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof electrical, lighting, ventilating equipment. P260 - Do not breathe mist, vapours. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear Butyl rubber gloves. P302+P352 - IF ON SKIN: Wash with plenty of water P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P314 - Get medical advice/attention if you feel unwell. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use carbon dioxide (CO ₂), dry extinguishing powder, foam, Water spray to extinguish. P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH208 - Contains butanone oxime(96-29-7). May produce an allergic reaction.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cardinal Fast Red 1432 EXP-7783	(CAS-No.) mixture	< 35	Flam. Liq. 3, H226 Asp. Tox. 1, H304
Xylene	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index-No.) 601-022-00-9 (REACH-no) 01-2119488216-32	24.8 - 30.3	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315
solvent naphtha (petroleum), medium aliph	(CAS-No.) 64742-88-7 (EC-No.) 265-191-7 (EC Index-No.) 649-405-00-X	7.4 - 10	Flam. Liq. 3, H226 STOT RE 1, H372 Asp. Tox. 1, H304
Ethylbenzene	(CAS-No.) 100-41-4 (EC-No.) 202-849-4 (EC Index-No.) 601-023-00-4	2.8 - 6.1	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
butanone oxime	(CAS-No.) 96-29-7 (EC-No.) 202-496-6 (EC Index-No.) 616-014-00-0	< 0.5	Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: wash with soap and water. Seek medical attention if persists.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

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

- Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour.
- Explosion hazard : Flammable vapours heavier than air/can accumulate.

5.3. Advice for firefighters

- Protection during firefighting : Wear fire/flare resistant/retardant clothing. Positive pressure self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe vapours. Avoid contact with skin, eyes and clothing. Eliminate ignition sources.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing and gloves. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

Section 13: disposal information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapours. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Wear Protective gloves. Butyl rubber gloves. Gloves must be replaced after each use and whenever signs of wear or perforation appear.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.
- Incompatible products : Strong oxidizers.

7.3. Specific end use(s)

Marking.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Xylene (1330-20-7)		
EU	Local name	Xylene, mixed isomers, pure
EU	IOELV TWA (mg/m ³)	221 mg/m ³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m ³)	442 mg/m ³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Skin
Austria	MAK (mg/m ³)	221 mg/m ³ (H)
Austria	MAK (ppm)	50 ppm (H)
Austria	MAK Short time value (mg/m ³)	442 mg/m ³ max. 4x15 min./Schicht, (H)
Austria	MAK Short time value (ppm)	100 ppm max. 4x15 min./Schicht, (H)
Belgium	Limit value (mg/m ³)	221 mg/m ³
Belgium	Limit value (ppm)	50 ppm
Belgium	Short time value (mg/m ³)	442 mg/m ³
Belgium	Short time value (ppm)	100 ppm
Belgium	Remark (BE)	D
Czech Republic	Local name	Xylen technická směs s isomery (všechny isomery)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	200 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	46 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	400 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	92 ppm
Czech Republic	Remark (CZ)	D,I
Denmark	Local name	Xylen (Dimethylbenzen), alle isomere
Denmark	Grænseværdie (langvarig) (mg/m ³)	109 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	25 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	218 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
Denmark	Anmærkninger (DK)	H
Finland	Local name	Ksyleeni
Finland	HTP-arvo (8h) (mg/m ³)	220 mg/m ³
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	HTP-arvo (15 min)	440 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	100 ppm
Finland	Huomautus (FI)	iho
France	Local name	Xylène, isomères mixtes, purs
France	VME (mg/m ³)	221 mg/m ³
France	VME (ppm)	50 ppm
France	VLE (mg/m ³)	442 mg/m ³
France	VLE (ppm)	100 ppm
Germany	Local name	Xylol (alle Isomeren)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	440 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	100 ppm
Germany	Remark (TRGS 900)	H
Hungary	Local name	XILOL(ok)
Hungary	AK-érték	221 mg/m ³
Hungary	CK-érték	442 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	221 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	50 ppm
Ireland	OEL (15 min ref) (mg/m ³)	442 mg/m ³
Ireland	OEL (15 min ref) (ppm)	100 ppm

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Xylene (1330-20-7)		
Ireland	Notes (IE)	Sk, IOELV
Italy	Local name	Xilene, isomeri misti, puro
Italy	OEL TWA (mg/m ³)	221 mg/m ³
Italy	OEL TWA (ppm)	50 ppm
Italy	OEL STEL (mg/m ³)	442 mg/m ³
Italy	OEL STEL (ppm)	100 ppm
Latvia	Local name	Ksilols (o-,m-,p-ksilols, dimetilbenzols)
Latvia	OEL TWA (mg/m ³)	221 mg/m ³
Latvia	OEL TWA (ppm)	50 ppm
Latvia	OEL STEL (mg/m ³)	442 mg/m ³
Latvia	OEL STEL (ppm)	100 ppm
Lithuania	IPRV (mg/m ³)	200 mg/m ³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m ³)	450 mg/m ³
Lithuania	TPRV (ppm)	100 ppm
Lithuania	Remark (LT)	O
Netherlands	Local name	Xyleen, o-, m-, p-isomeren
Netherlands	Grenswaarde TGG 8H (mg/m ³)	210 mg/m ³
Netherlands	Grenswaarde TGG 8H (ppm)	50 ppm
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	442 mg/m ³
Netherlands	Remark (MAC)	(H)
Poland	Local name	Ksilen mieszanina izomerów: 1,2-; 1,3-; 1,4-
Poland	NDS (mg/m ³)	100 mg/m ³
Poland	NDSCh (mg/m ³)	350 mg/m ³
Portugal	Local name	Xileno (isómeros)
Portugal	OEL TWA (ppm)	100 ppm
Portugal	OEL STEL (ppm)	150 ppm
Slovakia	Local name	Xylén, zmiešané izoméry
Slovakia	NPHV (priemerná) (mg/m ³)	221 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	50 ppm (K) 1.5 ppm (Xylén) 2000 ppm (Suma kyselín 2,3,4-metylhippurových)
Slovakia	OEL STEL (mg/m ³)	442 mg/m ³
Slovakia	OEL STEL (ppm)	100 ppm
Slovenia	Local name	ksilen (mešane izomere)
Slovenia	OEL TWA (mg/m ³)	221 mg/m ³
Slovenia	OEL TWA (ppm)	50 ppm
Slovenia	OEL STEL (mg/m ³)	442 mg/m ³
Slovenia	OEL STEL (ppm)	100 ppm
Spain	Local name	Xilenos, mezcla isómeros
Spain	VLA-ED (mg/m ³)	221 mg/m ³ vía dérmica, VLB, VLI
Spain	VLA-ED (ppm)	50 ppm vía dérmica, VLB, VLI 1.5 ppm (Ácidos metilhipúricos en orina; Final de la jornada laboral 2)
Spain	VLA-EC (mg/m ³)	442 mg/m ³ vía dérmica, VLB, VLI
Spain	VLA-EC (ppm)	100 ppm vía dérmica, VLB, VLI
Sweden	Local name	Xylen
Sweden	nivågränsvärde (NVG) (mg/m ³)	221 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	442 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	100 ppm

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Xylene (1330-20-7)		
Sweden	Anmärkning (SE)	(H)
United Kingdom	WEL TWA (mg/m ³)	220 mg/m ³ (Sk)
United Kingdom	WEL TWA (ppm)	50 ppm (Sk) 650 ppm (methyl hippuric acid/mol creatinine in urine, Post shift)
United Kingdom	WEL STEL (mg/m ³)	441 mg/m ³ (Sk)
United Kingdom	WEL STEL (ppm)	100 ppm (Sk)
Norway	Local name	Xylen (alle isomere)
Norway	Grenseverdier (AN) (mg/m ³)	108 mg/m ³
Norway	Grenseverdier (AN) (ppm)	25 ppm
Norway	Merknader (NO)	H
Switzerland	VME (mg/m ³)	435 mg/m ³
Switzerland	MAK (ppm)	100 ppm 1.5 ppm Methylhippur-(Tolur-)säure (urina; in caso di esposizione per molto tempo/fine dell'esposizione / del turno) 1.5 ppm xilolo (sangue; fine dell'esposizione / del turno)
Switzerland	KZGW (mg/m ³)	870 mg/m ³ max. 4x30 min./turno
Switzerland	KZGW (ppm)	200 ppm max. 4x30 min./turno
Australia	TWA (mg/m ³)	441 mg/m ³
Australia	TWA (ppm)	100 ppm
Australia	STEL (mg/m ³)	662 mg/m ³
Australia	STEL (ppm)	150 ppm
Canada (Quebec)	VECD (mg/m ³)	651 mg/m ³
Canada (Quebec)	VECD (ppm)	150 ppm
Canada (Quebec)	VEMP (mg/m ³)	434 mg/m ³
Canada (Quebec)	VEMP (ppm)	100 ppm
USA - ACGIH	Local name	Xylene
USA - ACGIH	ACGIH TWA (mg/m ³)	434 mg/m ³
USA - ACGIH	ACGIH TWA (ppm)	100 ppm
USA - ACGIH	ACGIH STEL (mg/m ³)	651 mg/m ³
USA - ACGIH	ACGIH STEL (ppm)	150 ppm
USA - ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	435 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m ³)	655 mg/m ³
USA - NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
USA - OSHA	Local name	Xylenes (o-, m-, p-isomers)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	100 ppm
Ethylbenzene (100-41-4)		
EU	Local name	Ethylbenzene
EU	IOELV TWA (mg/m ³)	442 mg/m ³
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m ³)	884 mg/m ³
EU	IOELV STEL (ppm)	200 ppm
EU	Notes	Skin
Czech Republic	Local name	Ethylbenzen
Czech Republic	Expoziční limity (PEL) (mg/m ³)	200 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	50 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	500 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	120 ppm
Czech Republic	Remark (CZ)	D
Denmark	Local name	Ethylbenzen

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Ethylbenzene (100-41-4)		
Denmark	Grænseværdie (langvarig) (mg/m ³)	217 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	434 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi); K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Finland	Local name	Etylibentseeni
Finland	HTP-arvo (8h) (mg/m ³)	220 mg/m ³
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	HTP-arvo (15 min)	880 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	200 ppm
France	Local name	Ethylbenzène
France	VME (mg/m ³)	88.4 mg/m ³
France	VME (ppm)	20 ppm
France	VLE (mg/m ³)	442 mg/m ³
France	VLE (ppm)	100 ppm
France	Note (FR)	Peau
Germany	Local name	Ethylbenzol
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	88 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm
Germany	Remark (TRGS 900)	DFG,H,Y,EU
Germany	TRGS 903 (BGW)	1 mg/l Ethylbenzol (Blut; Expositionsende bzw. Schichtende) 800 mg/l Mandelsäure + Phenylglyoxylsäure (Urin; Expositionsende bzw. Schichtende)
Hungary	Local name	ETILBENZOL
Hungary	AK-érték	442 mg/m ³
Hungary	CK-érték	884 mg/m ³
Hungary	Megjegyzések (HU)	b, i, l.
Italy	Local name	Etilbenzene
Italy	OEL TWA (mg/m ³)	442 mg/m ³
Italy	OEL TWA (ppm)	100 ppm
Italy	OEL STEL (mg/m ³)	884 mg/m ³
Italy	OEL STEL (ppm)	200 ppm
Latvia	Local name	Etilbenzols
Latvia	OEL TWA (mg/m ³)	442 mg/m ³
Latvia	OEL TWA (ppm)	100 ppm
Latvia	OEL STEL (mg/m ³)	884 mg/m ³
Latvia	OEL STEL (ppm)	200 ppm
Netherlands	Local name	Ethylbenzeen
Netherlands	Grenswaarde TGG 8H (mg/m ³)	215 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	430 mg/m ³
Netherlands	Remark (MAC)	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een Haanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Poland	Local name	Etylobenzen
Poland	NDS (mg/m ³)	200 mg/m ³
Poland	NDSch (mg/m ³)	400 mg/m ³

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Ethylbenzene (100-41-4)		
Portugal	Local name	Etilbenzeno
Portugal	OEL TWA (ppm)	20 ppm
Slovakia	Local name	Etylbenzén
Slovakia	NPHV (priemerná) (mg/m ³)	442 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	100 ppm (K) 12 ppm (2 - a 4 -Etylfenol) 1600 ppm (Kyselina mandlová a kyselina fenylglyoxylová)
Slovakia	OEL STEL (mg/m ³)	884 mg/m ³
Slovakia	OEL STEL (ppm)	200 ppm
Slovenia	Local name	etilbenzen
Slovenia	OEL TWA (mg/m ³)	442 mg/m ³
Slovenia	OEL TWA (ppm)	100 ppm
Slovenia	OEL STEL (mg/m ³)	884 mg/m ³
Slovenia	OEL STEL (ppm)	200 ppm
Spain	Local name	Etilbenceno
Spain	VLA-ED (mg/m ³)	441 mg/m ³ vía dérmica,VLB,VLI
Spain	VLA-ED (ppm)	100 ppm vía dérmica,VLB,VLI 700 ppm I, S "(Suma del ácido mandélico y el ácido fenilgloxílico en orina; Final de la semana laboral 1)"
Spain	VLA-EC (mg/m ³)	884 mg/m ³ vía dérmica,VLB,VLI
Spain	VLA-EC (ppm)	200 ppm vía dérmica,VLB,VLI
Sweden	Local name	Etylbensen
Sweden	nivågränsvärde (NVG) (mg/m ³)	220 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	884 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	200 ppm
Norway	Local name	Etylbenzen
Norway	Grenseverdier (AN) (mg/m ³)	20 mg/m ³
Norway	Grenseverdier (AN) (ppm)	5 ppm
Norway	Merknader (NO)	H (Kjemikalier som kan tas opp gjennom huden); K (Kjemikalier som skal betraktes som kreftfremkallende); E (EU har en veiledende grenseverdi for stoffet)
Canada (Quebec)	VECD (mg/m ³)	543 mg/m ³
Canada (Quebec)	VECD (ppm)	125 ppm
Canada (Quebec)	VEMP (mg/m ³)	434 mg/m ³
Canada (Quebec)	VEMP (ppm)	100 ppm
USA - ACGIH	Local name	Ethyl benzene
USA - ACGIH	ACGIH TWA (mg/m ³)	434 mg/m ³
USA - ACGIH	ACGIH TWA (ppm)	20 ppm
USA - ACGIH	ACGIH STEL (mg/m ³)	543 mg/m ³
USA - ACGIH	ACGIH STEL (ppm)	125 ppm
USA - ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	435 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m ³)	545 mg/m ³
USA - NIOSH	NIOSH REL (STEL) (ppm)	125 ppm
USA - OSHA	Local name	Ethyl benzene
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	100 ppm
solvent naphtha (petroleum), medium aliph (64742-88-7)		
Sweden	nivågränsvärde (NVG) (mg/m ³)	180 mg/m ³

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solvent naphtha (petroleum), medium aliph (64742-88-7)

Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	250 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	75 ppm
Switzerland	VME (mg/m ³)	525 mg/m ³
Switzerland	MAK (ppm)	100 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves. Butyl rubber gloves. Gloves must be replaced after each use and whenever signs of wear or perforation appear. EN 374

Eye protection:

Eye protection should only be necessary where liquid could be splashed or sprayed. EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No respiratory protection needed under normal use conditions

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Solid marker containing liquid colored paint.
Colour	: red.
Odour	: aromatic hydrocarbons.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 27.2 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 27.6 - 36.4 %

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SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Xylene (1330-20-7)	
LD50 oral rat	> 3500 mg/kg

Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	17.8 ml/kg
LC50 inhalation rat (ppm)	< 1500 ppm

solvent naphtha (petroleum), medium aliph (64742-88-7)	
LD50 oral rat	> 5000 mg/kg No mortality observed
LD50 dermal rat	> 2000 mg/kg No mortality observed
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h No mortality observed

butanone oxime (96-29-7)	
LD50 oral rat	> 900 mg/kg No mortality observed
LD50 dermal rabbit	> 1000 mg/kg No mortality observed
LC50 inhalation rat (mg/l)	> 4.83 mg/l/4h No mortality observed

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

butanone oxime (96-29-7)	
NOAEL (chronic, oral, animal/male, 2 years)	270 mg/kg bodyweight mg/m3
NOAEL (chronic, oral, animal/female, 2 years)	1350 mg/kg bodyweight mg/m3

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Causes skin irritation. May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Ethylbenzene (100-41-4)	
LC50 fish 1	5.1 mg/l
EC50 other aquatic organisms 1	7.7 mg/l

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Ethylbenzene (100-41-4)	
NOEC (acute)	3.3 mg/l
solvent naphtha (petroleum), medium aliph (64742-88-7)	
LC50 fish 1	2 (2 - 5) mg/l 96 h, Oncorhynchus mykiss
EC50 Daphnia 1	1.4 mg/l 48 h
butanone oxime (96-29-7)	
LC50 fish 1	> 100 mg/l 96 h
EC50 Daphnia 1	201 mg/l 48 h

12.2. Persistence and degradability

SuperFine Metal Marker Red	
Persistence and degradability	Not established.
Ethylbenzene (100-41-4)	
Persistence and degradability	Not established.
solvent naphtha (petroleum), medium aliph (64742-88-7)	
Biodegradation	58.6 % 28 d
butanone oxime (96-29-7)	
Biodegradation	70 % 18 d

12.3. Bioaccumulative potential

SuperFine Metal Marker Red	
Bioaccumulative potential	Not established.
Xylene (1330-20-7)	
BCF fish 1	1.3 mg/l
Bioaccumulative potential	Not expected to bioaccumulate.
Ethylbenzene (100-41-4)	
Bioaccumulative potential	Not established.
butanone oxime (96-29-7)	
Log Pow	0.63

12.4. Mobility in soil

SuperFine Metal Marker Red	
Ecology - soil	Not established.

12.5. Results of PBT and vPvB assessment

SuperFine Metal Marker Red	
PBT: not yet assessed	
vPvB: not yet assessed	

12.6. Other adverse effects

Other adverse effects : None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: 20 01 27* - paint, inks, adhesives and resins containing dangerous substances
HP Code	: HP3 - "Flammable:" — flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C; — flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air; — flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction; — flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa; — water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities; — other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

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HP Code : HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1263
UN-No. (IMDG) : 1263
UN-No. (IATA) : 1263
UN-No. (ADN) : 1263
UN-No. (RID) : 1263

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PAINT
Proper Shipping Name (IMDG) : PAINT
Proper Shipping Name (IATA) : PAINT
Proper Shipping Name (ADN) : PAINT
Proper Shipping Name (RID) : PAINT
Transport document description (ADR) : UN 1263 PAINT, 3, III, (D/E)
Transport document description (IMDG) : UN 1263 PAINT, 3, III
Transport document description (IATA) : UN 1263 PAINT, 3, III
Transport document description (ADN) : UN 1263 PAINT, 3, III
Transport document description (RID) : UN 1263 PAINT, 3, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3



ADN

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Transport hazard class(es) (ADN) : 3

Danger labels (ADN) : 3



RID

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3



14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

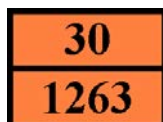
14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1

Hazard identification number (Kemler No.) : 30

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : •3YE

- Transport by sea

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-E

Stowage category (IMDG) : B

Properties and observations (IMDG) : Miscibility with water depends upon the composition.

- Air transport

Special provisions (IATA) : A3, A72, A192

ERG code (IATA) : 3L

- Inland waterway transport

Classification code (ADN) : F1

- Rail transport

Classification code (RID) : F1

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 27.6 - 36.4 %

15.1.2. National regulations

No additional information available

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : solvent naphtha (petroleum), medium aliph is listed

SZW-lijst van mutagene stoffen : solvent naphtha (petroleum), medium aliph is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Xylene is listed

Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 <H226;H315;H317;H351;H372>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

ACGIH (American Conference of Government Industrial Hygienists)
ATE: Acute Toxicity Estimate
CAS (Chemical Abstracts Service) number
CLP: Classification, Labelling, Packaging.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population
LC50: Median lethal concentration
STEL: Short Term Exposure Limits
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average

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Data sources : ACGIH (American Conference of Government Industrial Hygienists).
Chemical Inspection & Regulation Service; accessed at: http://www.cirs-reach.com/Inventory/Global_Chemical_Inventories.html.
Component Supplier SDSs.
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
European Chemicals Agency (ECHA) Candidate Substances List.
Internal Company test data.
Kriester Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.
OSHA 29CFR 1910.1200 Hazard Communication Standard.
TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
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.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH208	Contains butanone oxime(96-29-7). May produce an allergic reaction.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 3	H226	On basis of test data
Skin Irrit. 2	H315	Calculation method
Skin Sens. 1	H317	Expert judgment
Carc. 2	H351	Calculation method
STOT RE 1	H372	Calculation method

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product