

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

Product form

: Mixture

Trade name

: All-Weather® Plastic Tag Marker Black

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

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 220115 Minsk	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifcentrum 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 Tolleben 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	Giftlinjen 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
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, Nagyváradi 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

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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]

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 3	H412

Full text of H-phrases: 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

: 4-methylpentan-2-one, 2-Oxepanone, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2,2'-oxybis[ethanol], Xylene, ethylbenzene, Carbon black, bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP)

: 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

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P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P260 - Do not breathe mist, spray, vapours
P264 - Wash hands 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 eye protection, protective 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/shower
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 or doctor if you feel unwell
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
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
P370+P378 - In case of fire: Use carbon dioxide (CO₂), Dry powder., alcohol resistant foam to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9	20 – 40	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315
4-methylpentan-2-one	(CAS No) 108-10-1 (EC no) 203-550-1 (EC index no) 606-004-00-4	10 – 30	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 STOT SE 3, H335
ethylbenzene	(CAS No) 100-41-4 (EC no) 202-849-4 (EC index no) 601-023-00-4	5 – 15	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
(2-Methoxymethylethoxy)-propanol	(CAS No) 34590-94-8 (EC no) 252-104-2	5 – 15	Not classified
2-phenoxyethanol	(CAS No) 122-99-6 (EC no) 204-589-7 (EC index no) 603-098-00-9	1 – 10	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
C.I. Solvent Black 29	(CAS No) 117527-94-3 (EC no) 403-720-7 (EC index no) 611-044-00-0	1 – 10	Aquatic Chronic 2, H411
2-Oxepanone, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2,2'-oxybis[ethanol]	(CAS No) 54954-83-5	1 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H336 STOT SE 3, H335
Carbon black	(CAS No) 1333-86-4 (EC no) 215-609-9	1 – 5	Carc. 2, H351
diacetone alcohol	(CAS No) 123-42-2 (EC no) 204-626-7 (EC index no) 603-016-00-1	0.1 – 5	Eye Irrit. 2, H319
ethyl 3-ethoxypropionate	(CAS No) 763-69-9 (EC no) 212-112-9	0.1 – 1	Flam. Liq. 3, H226

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Naphthalene	(CAS No) 91-20-3 (EC no) 202-049-5 (EC index no) 601-052-00-2	0.1 – 1	Carc. 2, H351 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7 (EC no) 255-437-1	0.1 – 1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Toluene	(CAS No) 108-88-3 (EC no) 203-625-9 (EC index no) 601-021-00-3	< 0.1	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336
Name	Product identifier	Specific concentration limits	
diacetone alcohol	(CAS No) 123-42-2 (EC no) 204-626-7 (EC index no) 603-016-00-1	(C >= 10) Eye Irrit. 2, H319	

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Do NOT induce vomiting. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Get medical advice/attention if you feel unwell.

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

- Symptoms/injuries : Causes damage to organs. Suspected of causing cancer.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour. Burning produces irritating, toxic and noxious fumes.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

- Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition. Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.
- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves. Chemical goggles or safety glasses.
Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid all eye and skin contact and do not breathe vapour and mist. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
Storage conditions : Keep in fireproof place. Keep container closed when not in use.
Incompatible products : Strong oxidizers.
Incompatible materials : Heat sources. Direct sunlight.
Prohibitions on mixed storage : Incompatible materials.
Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Marking.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

4-methylpentan-2-one (108-10-1)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	166 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	166 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Germany	TRGS 903 (BGW)	3.5 mg/l
Germany	Remark (TRGS 903)	4-Methylpentan-2-on (Urin; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m³)	83 mg/m³ (K)
Slovakia	NPHV (priemerná) (ppm)	20 ppm (K) 3.5 ppm (Hexón)
(2-Methoxymethylethoxy)-propanol (34590-94-8)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	600 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Finland	Huomautus (FI)	iho
France	Note (FR)	Peau
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	310 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	50 ppm
Slovakia	NPHV (priemerná) (mg/m³)	308 mg/m³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	Upozornenie (SK)	poznámka K
Spain	VLA-ED (mg/m³)	308 mg/m³

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(2-Methoxymethylethoxy)-propanol (34590-94-8)		
Spain	VLA-ED (ppm)	50 ppm
Spain	Notes	vía dérmica,VLI
Sweden	Anmärkning (SE)	H
diacetone alcohol (123-42-2)		
Czech Republic	Remark (CZ)	I
Denmark	Grænseværdie (kortvarig) (mg/m³)	480 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	192 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Spain	VLA-ED (mg/m³)	241 mg/m³
Spain	VLA-ED (ppm)	50 ppm
ethyl 3-ethoxypropionate (763-69-9)		
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	610 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	100 ppm
Xylene (1330-20-7)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	218 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
Finland	Huomautus (FI)	iho
Netherlands	Grenswaarde TGG 8H (ppm)	50 ppm
Poland	NDSch (mg/m³)	350 mg/m³
Slovakia	NPHV (priemerná) (mg/m³)	221 mg/m³ (K)
Slovakia	NPHV (priemerná) (ppm)	50 ppm (K) 1.5 ppm (Xylén) 2000 ppm (Suma kyselín 2,3,4-metylhippurových)
Sweden	Anmärkning (SE)	(H)
ethylbenzene (100-41-4)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	434 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
France	VME (mg/m³)	88.4 mg/m³
France	VME (ppm)	20 ppm
France	VLE (mg/m³)	442 mg/m³
France	VLE (ppm)	100 ppm
France	Note (FR)	Peau
Germany	TRGS 903 (BGW)	1 mg/l Ethylbenzol (Blut; Expositionsende bzw. Schichtende) 800 mg/l Mandelsäure + Phenylglyoxylsäure (Urin; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m³)	442 mg/m³ (K)
Slovakia	NPHV (priemerná) (ppm)	100 ppm (K) 12 ppm (2 - a 4 -Etylfenol) 1600 ppm (Kyselina mandlová a kyselina fenylglyoxylová)
Spain	VLA-ED (mg/m³)	441 mg/m³ 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/m³)	884 mg/m³ vía dérmica,VLB,VLI
Spain	VLA-EC (ppm)	200 ppm vía dérmica,VLB,VLI
2-phenoxyethanol (122-99-6)		
Finland	Huomautus (FI)	iho
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	220 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Carbon black (1333-86-4)		
Belgium	Limit value (mg/m³)	3.5 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	3.5 mg/m³
Denmark	Anmærkninger (DK)	K

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Carbon black (1333-86-4)		
Finland	HTP-arvo (8h) (mg/m³)	3.5 mg/m³
Finland	HTP-arvo (15 min)	7 mg/m³
France	VME (mg/m³)	3.5 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	3.5 mg/m³
Ireland	OEL (15 min ref) (mg/m³)	7 mg/m³
Spain	VLA-ED (mg/m³)	3.5 mg/m³
Sweden	nivågränsvärde (NVG) (mg/m³)	3 mg/m³
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m³)	3.5 mg/m³
United Kingdom	WEL STEL (mg/m³)	7 mg/m³
Norway	Gjennomsnittsverdier (AN) (mg/m³)	3.5 mg/m³
Naphthalene (91-20-3)		
EU	IOELV TWA (mg/m³)	50 mg/m³
EU	IOELV TWA (ppm)	10 ppm
Denmark	Grænseværdie (kortvarig) (mg/m³)	100 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	20 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	0.5 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	0.1 ppm
Slovakia	NPHV (priemerná) (mg/m³)	50 mg/m³
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	Upozornenie (SK)	(K)
United Kingdom	WEL TWA (mg/m³)	53 mg/m³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m³)	80 mg/m³
United Kingdom	WEL STEL (ppm)	15 ppm
United Kingdom	Remark (WEL)	The UK Advisory Committee on Toxic Substances has expressed concern that, for these OELs, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.
Toluene (108-88-3)		
EU	IOELV TWA (mg/m³)	192 mg/m³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m³)	384 mg/m³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Skin
Denmark	Grænseværdie (kortvarig) (mg/m³)	188 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
France	Note (FR)	Peau
Germany	TRGS 903 (BGW)	3 mg/l o-Kresol (Urin; bei Langzeitexposition/Expositionsende bzw. Schichtende) 1 mg/l Toluol (Blut; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m³)	192 mg/m³ (K)
Slovakia	NPHV (priemerná) (ppm)	50 ppm (K) 600 ppm (Toluén) 1.5 ppm (O-krezol) 2401 ppm (Kyselina hippurová)
Sweden	Anmärkning (SE)	(B,H)

8.2. Exposure controls

Appropriate engineering controls

: Avoid creating mist or spray. Either local exhaust or general room ventilation is usually required.

Personal protective equipment

: Avoid all unnecessary exposure.

Hand protection

: Wear suitable gloves. Use rubber gloves. EN 374.

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Eye protection	: Chemical goggles or safety glasses. EN166.
Skin and body protection	: Wear suitable protective clothing. Long sleeved protective clothing. EN702.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.
Environmental exposure controls	: Avoid release to the environment.
Consumer exposure controls	: Keep out of reach of children.
Other information	: Do not eat, drink or smoke when using this product.

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	: Black.
Odour	: Solvent.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 117 °C
Flash point	: 14 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: < 1
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	: 85 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Open flame. Direct sunlight. Heat.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May release flammable gases. Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Dermal: Not classified. Inhalation:dust,mist: Harmful if inhaled.
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ATE CLP (dust,mist)	2.078 mg/l/4h
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4-methylpentan-2-one (108-10-1)	
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (ppm)	2000 (2000 - 4000) ppm/4h
ATE CLP (gases)	2000.000 ppmv/4h
ATE CLP (dust,mist)	1.500 mg/l/4h
(2-Methoxymethylethoxy)-propanol (34590-94-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 19020 mg/kg
LC50 inhalation rat (mg/l)	> 1667 mg/l/4h
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 1667 mg/l/4h
diacetone alcohol (123-42-2)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	13630 mg/kg
ATE CLP (oral)	4000.000 mg/kg bodyweight
ATE CLP (dermal)	13630.000 mg/kg bodyweight
ethyl 3-ethoxypropionate (763-69-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	4080 mg/kg
LC50 inhalation rat (mg/l)	>
LC50 inhalation rat (ppm)	> 998 ppm 6 h, No mortality observed
ATE CLP (dermal)	4080.000 mg/kg bodyweight
Xylene (1330-20-7)	
LD50 oral rat	> 3500 mg/kg
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	17.8 ml/kg
LC50 inhalation rat (ppm)	< 1500 ppm
ATE CLP (oral)	3500.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
2-phenoxyethanol (122-99-6)	
LD50 oral rat	1850 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 1000 mg/m ³
ATE CLP (oral)	1850.000 mg/kg bodyweight
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m ³ 4 h
Naphthalene (91-20-3)	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	20 g/kg
LC50 inhalation rat (mg/l)	> 340 mg/m ³ 1 hour
ATE CLP (oral)	490.000 mg/kg bodyweight
ATE CLP (dermal)	20000.000 mg/kg bodyweight
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)	
LD50 oral rat	2369 (2369 - 3920) mg/kg
ATE CLP (oral)	2369.000 mg/kg bodyweight
2-Oxepanone, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2,2'-oxybis[ethanol] (54954-83-5)	
ATE CLP (oral)	500.000 mg/kg bodyweight
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (gases)	4500.000 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
ATE CLP (dust,mist)	1.500 mg/l/4h
Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg EU Method B.1 (Acute Toxicity (Oral))
LC50 inhalation rat (mg/l)	> 20 mg/l/4h OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CLP (oral)	5580.000 mg/kg bodyweight

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LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.

2-phenoxyethanol (122-99-6)

NOAEL (subchronic, oral, animal/male, 90 days)	700 mg/kg bodyweight rat
NOAEL (subchronic, oral, animal/female, 90 days)	938.8 mg/kg bodyweight rat

Toluene (108-88-3)

LOAEL (inhalation, rat, gas, 90 days)	1250 ppmv/6h/day
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight/day EU Method B.26. Increased relative weights of liver and kidney are interpreted as toxicologically insignificant differences in the absence of histological findings.
NOAEL (inhalation, rat, gas, 90 days)	300 ppmv/6h/day OECD Guideline 453

Aspiration hazard	: Not classified
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Harmful to aquatic life with long lasting effects.
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4-methylpentan-2-one (108-10-1)

LC50 fish 1	> 179 96 h
EC50 Daphnia 1	> 200 48 h

(2-Methoxymethylethoxy)-propanol (34590-94-8)

LC50 fish 1	> 1000 mg/l Poecilia reticulata
ErC50 (algae)	> 1000 mg/l

diacetone alcohol (123-42-2)

LC50 fish 1	420 mg/l 96 h
EC50 Daphnia 1	9000 mg/l 24 h

ethyl 3-ethoxypropionate (763-69-9)

LC50 fish 1	84 mg/l 24 h
EC50 Daphnia 1	> 911.1 mg/l 24 h

ethylbenzene (100-41-4)

LC50 fish 1	5.1 mg/l
EC50 other aquatic organisms 1	7.7 mg/l
NOEC (acute)	3.3 mg/l

2-phenoxyethanol (122-99-6)

LC50 fish 1	344 mg/l 96 h Pimephales promelas
EC50 Daphnia 1	> 500 mg/l 48 h
LOEC (chronic)	50 mg/l 34 days
NOEC (chronic)	23 mg/l 34 days

Naphthalene (91-20-3)

LC50 fish 1	> 0.91 (0.91 - 2.82) mg/l Oncorhynchus mykiss (From Koppers SDS)
EC50 Daphnia 1	>= 1.96 mg/l From Koppers SDS
EC50 other aquatic organisms 1	33 mg/l From Sigma-Aldrich SDS
LC50 fish 2	> 1 (1 - 6.5) mg/l Pimephales promelas (From Sigma-Aldrich SDS)
LOEC (acute)	3.2 mg/l From Sigma-Aldrich SDS
NOEC (acute)	1.8 mg/l From Sigma-Aldrich SDS

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bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)	
LC50 fish 1	0.97 mg/l 96 h
EC50 Daphnia 1	20 mg/l 24 h
Toluene (108-88-3)	
LC50 fish 1	5.5 mg/l
EC50 Daphnia 2	3.78 mg/l
ErC50 (algae)	134 mg/l
LOEC (chronic)	2.77 mg/l
NOEC chronic fish	1.39 mg/l
NOEC chronic crustacea	0.74 mg/l
C.I. Solvent Black 29 (117527-94-3)	
LC50 fish 1	2 mg/l 96 h

12.2. Persistence and degradability

All-Weather® Plastic Tag Marker Black	
Persistence and degradability	May cause long-term adverse effects in the environment.
4-methylpentan-2-one (108-10-1)	
Persistence and degradability	Readily biodegradable.
(2-Methoxymethylethoxy)-propanol (34590-94-8)	
Persistence and degradability	Readily biodegradable.
diacetone alcohol (123-42-2)	
Persistence and degradability	Readily biodegradable.
Biodegradation	100 % 14 d
ethyl 3-ethoxypropionate (763-69-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	108 % 18 d
ethylbenzene (100-41-4)	
Persistence and degradability	Not established.
2-phenoxyethanol (122-99-6)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 90 % 3 days
Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)	
Biodegradation	38 % 28 d
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable.
C.I. Solvent Black 29 (117527-94-3)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

4-methylpentan-2-one (108-10-1)	
Log Pow	1.9
diacetone alcohol (123-42-2)	
Log Pow	1.03
ethyl 3-ethoxypropionate (763-69-9)	
Log Pow	1.47
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.
2-phenoxyethanol (122-99-6)	
Bioconcentration factor (BCF REACH)	0.3493 calculated
Log Pow	1.2
Naphthalene (91-20-3)	
BCF fish 1	>= 427 (427 - 1158)

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bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Log Pow	0.37
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Toluene (108-88-3)

Bioconcentration factor (BCF REACH)	90
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Log Kow	2.73
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C.I. Solvent Black 29 (117527-94-3)

Log Pow	< 3.7 @ 20 °C
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not dispose in household garbage.
Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.
H code	: H13 - 'Sensitizing': substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced. H14 - 'Ecotoxic': waste which presents or may present immediate or delayed risks for one or more sectors of the environment. H3-A - 'Highly flammable' : — liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or — substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or — solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or — gaseous substances and preparations which are flammable in air at normal pressure, or — substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities. H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation. H5 - 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks. H7 - 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.

SECTION 14: Transport information

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

14.1. UN number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

Class (ADR)	: 3
Classification code (ADR)	: F1

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Class (IATA) : 3
Class (IMDG) : 3
Class (ADN) : 3
Classification code (ADN) : F1

14.4. Packing group

Packing group (ADR) : II
Packing group (IATA) : II
Packing group (IMDG) : II
Packing group (ADN) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1
Orange plates :



Tunnel restriction code (ADR) : D/E
EAC code : •3YE

14.6.2. Transport by sea

EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Stowage category (IMDG) : B

14.6.3. Inland waterway transport

Carriage prohibited (ADN) : No

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

Not applicable

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 substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
VOC content : 85 %

15.1.2. National regulations

Germany

Water hazard class (WGK) : 3 - severe hazard to waters
Storage class (LGK) : LGK 3 - Flammable liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
GHS classification information. Revised format.

Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	DNEL: Derived No Effect Level

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	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
	NOEC: No Observable Effect Concentration
	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	PNEC: Predicted No Effect Level
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weight Average

Data sources

: ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.
ACGIH 2000.
Canadian Centre for Occupational Health and Safety. Accessed at: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.
European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>.
Krister 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>.

Other information

: None.

Full text of R-, H- and EUH-phrases:

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
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
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
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361d	Suspected of damaging the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R20/21	Harmful by inhalation and in contact with skin
R22	Harmful if swallowed
R36	Irritating to eyes
R36/37	Irritating to eyes and respiratory system
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R43	May cause sensitisation by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, 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
R66	Repeated exposure may cause skin dryness or cracking
R67	Vapours may cause drowsiness and dizziness
F	Highly flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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

Flam. Liq. 2	H225	On basis of test data
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

LA-CO EU CLP SDS

SDS Prepared by: The Redstone Group, LLC
6397 Emerald Pkwy.
Suite 200
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

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