

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 White

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/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
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. 3	H226
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Repr. 1B	H360
STOT SE 3	H335
STOT SE 3	H336
Aquatic Chronic 3	H412

Full text of hazard classes and 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 :

2-Oxepanone, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2,2'-oxybis[ethanol]; 1-Methoxy-2-propanol; N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone

Hazard statements (CLP) :

H226 - Flammable liquid and vapour
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H360 - May damage fertility or the unborn child
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
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P261 - Avoid breathing mist, vapours

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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., Water spray, 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

PBT: not yet assessed

vPvB: not yet assessed

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]
1-Methoxy-2-propanol	(CAS No) 107-98-2 (EC no) 203-539-1 (EC index no) 603-064-00-3	40 – 60	Flam. Liq. 3, H226 STOT SE 3, H336
titanium dioxide	(CAS No) 13463-67-7 (EC no) 236-675-5	10 – 20	Not classified
(2-Methoxymethylethoxy)-propanol	(CAS No) 34590-94-8 (EC no) 252-104-2	5 – 15	Not classified
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone substance listed as REACH Candidate (1-Methyl-2-pyrrolidone)	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7	< 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360D STOT SE 3, H335
2-Oxepanone, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2,2'-oxybis[ethanol]	(CAS No) 54954-83-5	1 – 7	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
diacetone alcohol	(CAS No) 123-42-2 (EC no) 204-626-7 (EC index no) 603-016-00-1	1 – 3	Eye Irrit. 2, H319
Heavy Aromatic Naphtha Solvent	(CAS No) 64742-94-5 (EC no) 265-198-5 (EC index no) 649-424-00-3	0.1 – 2	Asp. Tox. 1, H304
ethyl 3-ethoxypropionate	(CAS No) 763-69-9 (EC no) 212-112-9	0.1 – 2	Flam. Liq. 3, H226
Aluminum hydroxide	(CAS No) 21645-51-2 (EC no) 244-492-7	0 – 1	Not classified
Naphthalene	(CAS No) 91-20-3 (EC no) 202-049-5 (EC index no) 601-052-00-2	0.01 – 0.5	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Aluminum oxide	(CAS No) 1344-28-1 (EC no) 215-691-6	0 – 0.2	Not classified
Name	Product identifier	Specific concentration limits	
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7	(C >= 5) Repr. 1B, H360D (C >= 10) STOT SE 3, H335	

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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 H-statements: see section 16

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 : 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 : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 : Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/injuries : May damage fertility or the unborn child.
- Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

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 : 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 : Flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.
- Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing. 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 contact with skin, eyes and clothing.

6.1.1. For non-emergency personnel

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

6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses. Wear suitable gloves.
- 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 : Stop leak if safe to do so.
- Methods for cleaning up : Wipe up with absorbent material (for example cloth). Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like cerniculite, sand, or earth to soak up the product and place into a container for later disposal.

6.4. Reference to other sections

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

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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. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid contact with skin, eyes and clothing. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours.
- 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, lighting, ventilating equipment.
- Storage conditions : Keep container tightly closed.
- Incompatible products : Oxidizer.
- Incompatible materials : Heat sources.
- Heat and ignition sources : Keep away from heat, sparks and flame.
- 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

Aluminum oxide (1344-28-1)		
Austria	MAK (mg/m ³)	10 mg/m ³ (gemessen als einatembarer Aerosolanteil) 5 mg/m ³ (alveolengängiger Anteil)
Austria	MAK Short time value (mg/m ³)	20 mg/m ³ (gemessen als einatembarer Aerosolanteil) max. 2x60 min./Schicht 10 mg/m ³ (alveolengängiger Anteil) max. 2x60 min./Schicht
Belgium	Limit value (mg/m ³)	10 mg/m ³
Belgium	Remark (BE)	(oxyde d') (en Al)
Denmark	Grænseværdie (langvarig) (mg/m ³)	5 mg/m ³ (total) 2 mg/m ³ (respirabel)
Denmark	Grænseværdie (kortvarig) (mg/m ³)	10 mg/m ³ (total) 4 mg/m ³ (respirabel)
France	VME (mg/m ³)	10 mg/m ³
France	Note (FR)	(respirable aerosol)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	3 mg/m ³
Germany	Remark (TRGS 900)	(gemessen als alveolengängiger Staubanteil)
Hungary	AK-érték	6 mg/m ³
Hungary	Megjegyzések (HU)	(respirable aerosol)
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ (total inhalable dust) 4 mg/m ³ (respirable dust)
Lithuania	IPRV (mg/m ³)	2 mg/m ³
Lithuania	Remark (LT)	(alveolinė frakcija. Piūrėk IX skyriaus 3 pastabà.)
Poland	NDS (mg/m ³)	2.5 mg/m ³ (dymy, pyl calkowity) 1.2 mg/m ³ (dymy, pyl respirabilny)
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovate¼ná frakcia)
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³ (inhalable aerosol) 2 mg/m ³ (respirable aerosol)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable aerosol) 4 mg/m ³ (respirable aerosol)
Norway	Grenseverdier (AN) (mg/m ³)	10 mg/m ³
Norway	Merknader (NO)	1)
Switzerland	VME (mg/m ³)	3 mg/m ³

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Aluminum oxide (1344-28-1)		
Switzerland	Remark (CH)	(respirable aerosol)
Aluminum hydroxide (21645-51-2)		
Austria	MAK (ppm)	10 ppm (gemessen als einatembarer Aerosolanteil) 5 ppm (alveolengängiger Anteil)
Austria	MAK Short time value (ppm)	20 ppm (gemessen als einatembarer Aerosolanteil) max. 2x60 min./Schicht 10 ppm (alveolengängiger Anteil) max. 2x60 min./Schicht
Poland	NDS (mg/m ³)	2.5 mg/m ³ dymy, pyl calkowity 1.2 mg/m ³ dymy, pyl respirabilny
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(alveolengängige Fraktion)
Heavy Aromatic Naphtha Solvent (64742-94-5)		
(2-Methoxymethylethoxy)-propanol (34590-94-8)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	600 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Finland	Huomautus (FI)	iho
France	Note (FR)	Peau
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	310 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	50 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	308 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	Upozornenie (SK)	poznámka K
Spain	VLA-ED (mg/m ³)	308 mg/m ³
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/m ³)	480 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	192 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Spain	VLA-ED (mg/m ³)	241 mg/m ³
Spain	VLA-ED (ppm)	50 ppm
ethyl 3-ethoxypropionate (763-69-9)		
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	610 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	100 ppm
Naphthalene (91-20-3)		
EU	IOELV TWA (mg/m ³)	50 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	20 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	0.5 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	0.1 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	50 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	Upozornenie (SK)	(K)
United Kingdom	WEL TWA (mg/m ³)	53 mg/m ³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m ³)	80 mg/m ³
United Kingdom	WEL STEL (ppm)	15 ppm

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Naphthalene (91-20-3)		
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.
1-Methoxy-2-propanol (107-98-2)		
EU	IOELV TWA (mg/m ³)	375 mg/m ³
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m ³)	568 mg/m ³
EU	IOELV STEL (ppm)	150 ppm
EU	Notes	Skin
Austria	MAK (mg/m ³)	187 mg/m ³
Austria	MAK (ppm)	50 ppm
Austria	MAK Short time value (mg/m ³)	187 mg/m ³
Austria	MAK Short time value (ppm)	50 ppm
Austria	Remark (AT)	(gemessen als Momentanwert), (H)
Belgium	Limit value (mg/m ³)	375 mg/m ³
Belgium	Limit value (ppm)	100 ppm
Belgium	Short time value (mg/m ³)	568 mg/m ³
Belgium	Short time value (ppm)	150 ppm
Belgium	Remark (BE)	D
Czech Republic	Expoziční limity (PEL) (mg/m ³)	270 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	73.17 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	550 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	149.05 ppm
Czech Republic	Remark (CZ)	D
Denmark	Grænseværdie (langvarig) (mg/m ³)	185 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	370 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
Finland	HTP-arvo (8h) (mg/m ³)	370 mg/m ³
Finland	HTP-arvo (8h) (ppm)	100 ppm
Finland	HTP-arvo (15 min)	560 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	150 ppm
Finland	Huomautus (FI)	iho
France	VME (mg/m ³)	188 mg/m ³
France	VME (ppm)	50 ppm
France	VLE (mg/m ³)	375 mg/m ³
France	VLE (ppm)	100 ppm
France	Note (FR)	Peau
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	370 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	100 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	740 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	200 ppm
Hungary	AK-érték	375 mg/m ³
Hungary	CK-érték	568 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	375 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	100 ppm
Ireland	OEL (15 min ref) (mg/m ³)	568 mg/m ³
Ireland	OEL (15 min ref) (ppm)	150 ppm
Lithuania	IPRV (mg/m ³)	190 mg/m ³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m ³)	300 mg/m ³

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1-Methoxy-2-propanol (107-98-2)		
Lithuania	TPRV (ppm)	75 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	375 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	563 mg/m ³
Netherlands	Remark (MAC)	(H)
Poland	NDS (mg/m ³)	180 mg/m ³
Poland	NDSch (mg/m ³)	360 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	375 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	100 ppm
Slovakia	Upozornenie (SK)	(K)
Spain	VLA-ED (mg/m ³)	375 mg/m ³
Spain	VLA-ED (ppm)	100 ppm
Spain	VLA-EC (mg/m ³)	568 mg/m ³
Spain	VLA-EC (ppm)	150 ppm
Spain	Notes	vía dérmica, VLI
Sweden	nivågränsvärde (NVG) (mg/m ³)	190 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	300 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	75 ppm
Sweden	Anmärkning (SE)	H
United Kingdom	WEL TWA (mg/m ³)	375 mg/m ³
United Kingdom	WEL TWA (ppm)	100 ppm
United Kingdom	WEL STEL (mg/m ³)	560 mg/m ³
United Kingdom	WEL STEL (ppm)	150 ppm
Norway	Grenseverdier (AN) (mg/m ³)	180 mg/m ³
Norway	Grenseverdier (AN) (ppm)	50 ppm
Norway	Merknader (NO)	H
Switzerland	VME (mg/m ³)	360 mg/m ³
Switzerland	VME (ppm)	100 ppm 20 ppm (urina; fine dell'esposizione / del turno)
Switzerland	VLE (mg/m ³)	720 mg/m ³
Switzerland	VLE (ppm)	200 ppm
titanium dioxide (13463-67-7)		
Belgium	Remark (BE)	(dioxyde de)
Denmark	Grænseværdie (kortvarig) (mg/m ³)	12 mg/m ³
France	Note (FR)	inhalable aerosol
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Slovakia	NPHV (priemerná) (mg/m ³)	5 mg/m ³
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Spain	Notes	inhalable aerosol
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³
Sweden	Anmärkning (SE)	total dust, 1
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ inhalable aerosol 4 mg/m ³ respirable aerosol
Switzerland	Remark (CH)	(respirable aerosol)

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Use rubber gloves. EN374.
Eye protection	: In case of splashing or aerosol production: protective goggles. EN166.
Skin and body protection	: Wear suitable protective clothing. Long sleeved protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH. Approved respirator. EN 12083.
Other information	: Do not eat, drink or smoke when using this product.

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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	: white.
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	: 120 °C
Flash point	: 32 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
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 : ≈ 52 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

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. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

Oxidizer.

10.6. Hazardous decomposition products

May release flammable gases. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Aluminum oxide (1344-28-1)	
LD50 oral rat	> 15900 mg/kg
LC50 inhalation rat (mg/l)	7.6 mg/l/4h
ATE CLP (vapours)	7.600 mg/l/4h
ATE CLP (dust,mist)	7.600 mg/l/4h
Heavy Aromatic Naphtha Solvent (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h

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Heavy Aromatic Naphtha Solvent (64742-94-5)	
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5000 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
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
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
1-Methoxy-2-propanol (107-98-2)	
LD50 oral rat	4016 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 inhalation rat (ppm)	> 7000 ppm 6 hr
ATE CLP (oral)	4016.000 mg/kg bodyweight
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	4150 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 5.1 mg/l/4h
ATE CLP (oral)	4150.000 mg/kg bodyweight
titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 6.82 mg/l/4h

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 : Not classified

titanium dioxide (13463-67-7)	
NOAEL (chronic, oral, animal/male, 2 years)	5 mg/kg bodyweight rat

Reproductive toxicity : May damage fertility or the unborn child.
Specific target organ toxicity (single exposure) : May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure) : Not classified
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.

Aluminum oxide (1344-28-1)	
EC50 Daphnia 1	> 1470 mg/l
NOEC (acute)	> 50 mg/l
(2-Methoxymethylethoxy)-propanol (34590-94-8)	
LC50 fish 1	> 1000 mg/l <i>Poecilia reticulata</i>
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
Naphthalene (91-20-3)	
LC50 fish 1	> 0.91 (0.91 - 2.82) mg/l <i>Oncornhynchus mykiss</i> (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 <i>Pimpephales promelas</i> (From Sigma-Aldrich SDS)
LOEC (acute)	3.2 mg/l From Sigma-Aldrich SDS
NOEC (acute)	1.8 mg/l From Sigma-Aldrich SDS
1-Methoxy-2-propanol (107-98-2)	
LC50 fish 1	20800 mg/l
EC50 Daphnia 1	23300 mg/l
ErC50 (algae)	> 1000 mg/l
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
LC50 fish 1	> 500 mg/l
NOEC (acute)	495 mg/l

12.2. Persistence and degradability

All-Weather Plastic Tag Marker White	
Persistence and degradability	May cause long-term adverse effects in the environment.
Heavy Aromatic Naphtha Solvent (64742-94-5)	
Persistence and degradability	Not rapidly degradable.
Biodegradation	39 %
(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
1-Methoxy-2-propanol (107-98-2)	
Persistence and degradability	Readily biodegradable.
Biodegradation	96 % 28 d
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

diacetone alcohol (123-42-2)	
Log Pow	1.03
ethyl 3-ethoxypropionate (763-69-9)	
Log Pow	1.47
Naphthalene (91-20-3)	
BCF fish 1	>= 427 (427 - 1158)

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1-Methoxy-2-propanol (107-98-2)	
Bioaccumulative potential	Not expected to bioaccumulate.

N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

Heavy Aromatic Naphtha Solvent (64742-94-5)	
Mobility in soil	Migrates to soil.

12.5. Results of PBT and vPvB assessment

All-Weather Plastic Tag Marker White	
PBT: not yet assessed	
vPvB: not yet assessed	
Component	
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.
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	: H10 - 'Toxic for reproduction': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence 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-B - 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation 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, III, (D/E)

14.3. Transport hazard class(es)

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

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14.4. Packing group

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

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.) : 30
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) : A

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 REACH substances with Annex XVII restrictions

Contains substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: 1-Methyl-2-pyrrolidone (EC 212-828-1, CAS 872-50-4)

Contains no REACH Annex XIV substances

VOC content : $\approx 52\%$

15.1.2. National regulations

Germany

Water hazard class (WGK) : 3 - severe hazard to waters

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	TSCA: Toxic Substances Control Act

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Data sources

: ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
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.
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

Full text of R-, 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 (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 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. 3	Flammable liquids, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
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
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
H360	May damage fertility or the unborn child
H360D	May damage the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360	Calculation method
STOT SE 3	H335	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Chronic 3	H412	Calculation method

LA-CO EU CLP SDS

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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