

Safety Data Sheet

according to Regulation (EU) 2015/830
Issue date: 8/7/2020 Version: 1.0

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

Product form : Mixture
Trade name : Dura-Ink® Retractable Red
Other means of identification : UFI: SMWX-Y4JH-5SKT-2AK9

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

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Marking.

1.2.2. Uses advised against

Restrictions on use : 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;
全国应急中心 0532 8388 9090



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

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EU Member State	Officieel adviesorgaan	Adres	Noodnummer
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
Acute toxicity (oral), Category 4	H302
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411
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

: 1-Methoxy-2-propanol; 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylium chloride; Basic Red 1

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H318 - Causes serious eye damage.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: 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/ventilating/lighting equipment.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P330 - Rinse mouth.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
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

Other hazards not contributing to the classification : Hygroscopic.

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]
1-Methoxy-2-propanol	(CAS-No.) 107-98-2 (EC-No.) 203-539-1 (EC Index-No.) 603-064-00-3	45 – 50	Flam. Liq. 3, H226 STOT SE 3, H336
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	35 – 40	Flam. Liq. 2, H225
Phenolic resin	(CAS-No.) 25085-50-1 (EC-No.) 472-160-3	8 – 12	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylium chloride; Basic Red 1	(CAS-No.) 989-38-8 (EC-No.) 231-584-9	4 – 6	Acute Tox. 3 (Oral), H301 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact

: Take off contaminated clothing and wash it before reuse. Wash skin thoroughly with mild soap and water.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion

: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation

: May cause drowsiness or dizziness.

Symptoms/effects after eye contact

: Causes serious eye damage.

Symptoms/effects after ingestion

: Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

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

: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media

: Do not use a heavy water stream.

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5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour. Flammable vapours may accumulate in the container. Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.
- Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. 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 all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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 : Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe aerosol. Use only outdoors or in a well-ventilated area. Do not breathe vapours. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

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 tightly closed.
- Incompatible products : Alkali metals. Oxidizer. ammonia. Peroxides.
- Heat and ignition sources : Keep away from heat, sparks and flame.
- 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

ethanol (64-17-5)

Austria - Occupational Exposure Limits

MAK (mg/m ³)	1900 mg/m ³
MAK Daily average value (ppm)	1000 ppm
MAK Short time value (mg/m ³)	3800 mg/m ³ max. 3x60 min./Schicht (gemessen als Momentanwert)
MAK Short time value (ppm)	2000 ppm max. 3x60 min./Schicht (gemessen als Momentanwert)

Belgium - Occupational Exposure Limits

Limit value (mg/m ³)	1907 mg/m ³
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ethanol (64-17-5)	
Limit value (ppm)	1000 ppm
Czech Republic - Occupational Exposure Limits	
Local name	Ethanol (Ethylalkohol)
Expoziční limity (PEL) (mg/m ³)	1000 mg/m ³
Expoziční limity (PEL) (ppm)	522 ppm
Expoziční limity (NPK-P) (mg/m ³)	3000 mg/m ³
Expoziční limity (NPK-P) (ppm)	1566 ppm
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 41/2020 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Ethanol (Ethylalkohol)
Grænsevædi (8 timer) (mg/m ³)	1900 mg/m ³
Grænsevædi (8 timer) (ppm)	1000 ppm
Grænsevædi (STEL) (mg/m ³)	3800 mg/m ³
Grænsevædi (STEL) (ppm)	2000 ppm
Regulatory reference	BEK nr 1458 af 13/12/2019
Finland - Occupational Exposure Limits	
Local name	Etanoli
HTP-arvo (8h) (mg/m ³)	1900 mg/m ³
HTP-arvo (8h) (ppm)	1000 ppm
HTP-arvo (15 min)	2500 mg/m ³
HTP-arvo (15 min) (ppm)	1300 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystieteiden ministeriö)
France - Occupational Exposure Limits	
Local name	Alcool éthylique
VME (mg/m ³)	1900 mg/m ³
VME (ppm)	1000 ppm
VLE (mg/m ³)	9500 mg/m ³
VLE (ppm)	5000 ppm
Note (FR)	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	Ethanol
Occupational exposure limit value (mg/m ³)	380 mg/m ³
Occupational exposure limit value (ppm)	200 ppm
Peak exposure limitation factor	2(II)
TRGS 900 Remark	DFG;Y
TRGS 900 Regulatory reference	TRGS900
Hungary - Occupational Exposure Limits	
Local name	ETIL-ALKOHOL
AK-érték	1900 mg/m ³
CK-érték	3800 mg/m ³
Megjegyzések (HU)	N (Iritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről

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ethanol (64-17-5)	
Ireland - Occupational Exposure Limits	
OEL (15 min ref) (ppm)	1000 ppm
Latvia - Occupational Exposure Limits	
Local name	Etilspirts (etanols)
OEL TWA (mg/m ³)	1000 mg/m ³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325
Lithuania - Occupational Exposure Limits	
IPRV (mg/m ³)	1000 mg/m ³
IPRV (ppm)	500 ppm
TPRV (mg/m ³)	1900 mg/m ³
TPRV (ppm)	1000 ppm
Netherlands - Occupational Exposure Limits	
Local name	Ethanol
Grenswaarde TGG 8H (mg/m ³)	260 mg/m ³
Grenswaarde TGG 15MIN (mg/m ³)	1900 mg/m ³
Remark (MAC)	Kankerverwekkende stof. 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 H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Regulatory reference	Arbeidsomstandighedenregeling 2020
Poland - Occupational Exposure Limits	
Local name	Etanol (alkohol etylowy)
NDS (mg/m ³)	1900 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Etanol (Álcool etílico)
OEL STEL (ppm)	1000 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia - Occupational Exposure Limits	
Local name	Etylalkohol (etanol)
NPHV (priemerná) (mg/m ³)	960 mg/m ³
NPHV (priemerná) (ppm)	500 ppm
OEL STEL (mg/m ³)	1920 mg/m ³
OEL STEL (ppm)	1000 ppm
Regulatory reference	Nariadenie vlády č. 33/2018 Z. z.
Slovenia - Occupational Exposure Limits	
Local name	etanol (etilalkohol)
OEL TWA (mg/m ³)	960 mg/m ³
OEL TWA (ppm)	500 ppm
OEL STEL (mg/m ³)	1920 mg/m ³
OEL STEL (ppm)	1000 ppm
Remark (SI)	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
Regulatory reference	Uradni list RS, št. 78/2019 z dne 20.12.2019

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ethanol (64-17-5)	
Spain - Occupational Exposure Limits	
Local name	Etanol (Alcohol etílico)
VLA-ED (mg/m ³)	1910 mg/m ³
VLA-ED (ppm)	1000 ppm
VLA-EC (mg/m ³)	1910 mg/m ³
VLA-EC (ppm)	1000 ppm
Notes	s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
Sweden - Occupational Exposure Limits	
Local name	Etanol
nivågränsvärde (NVG) (mg/m ³)	1000 mg/m ³
nivågränsvärde (NVG) (ppm)	500 ppm
kortidsvärde (KTV) (mg/m ³)	1900 mg/m ³
kortidsvärde (KTV) (ppm)	1000 ppm
Anmärkning (SE)	V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	1920 mg/m ³
WEL TWA (ppm)	1000 ppm
Norway - Occupational Exposure Limits	
Local name	Etanol
Grenseverdier (AN) (mg/m ³)	950 mg/m ³
Grenseverdier (AN) (ppm)	500 ppm
Regulatory reference	FOR-2020-04-06-695
Switzerland - Occupational Exposure Limits	
VME (mg/m ³)	960 mg/m ³
MAK (ppm)	500 ppm
KZGW (mg/m ³)	1920 mg/m ³
KZGW (ppm)	1000 ppm
1-Methoxy-2-propanol (107-98-2)	
EU - Occupational Exposure Limits	
Local name	1-Methoxypropanol-2
IOELV TWA (mg/m ³)	375 mg/m ³
IOELV TWA (ppm)	100 ppm
IOELV STEL (mg/m ³)	568 mg/m ³
IOELV STEL (ppm)	150 ppm
Notes	Skin
Austria - Occupational Exposure Limits	
MAK (mg/m ³)	187 mg/m ³
MAK Daily average value (ppm)	50 ppm

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1-Methoxy-2-propanol (107-98-2)	
MAK Short time value (mg/m ³)	187 mg/m ³
MAK Short time value (ppm)	50 ppm
Remark (AT)	(gemessen als Momentanwert), (H)
Belgium - Occupational Exposure Limits	
Limit value (mg/m ³)	375 mg/m ³
Limit value (ppm)	100 ppm
Short time value (mg/m ³)	568 mg/m ³
Short time value (ppm)	150 ppm
Remark (BE)	D
Czech Republic - Occupational Exposure Limits	
Local name	1-Methoxy-2-propanol
Expoziční limity (PEL) (mg/m ³)	270 mg/m ³
Expoziční limity (PEL) (ppm)	73.17 ppm
Expoziční limity (NPK-P) (mg/m ³)	550 mg/m ³
Expoziční limity (NPK-P) (ppm)	149.05 ppm
Remark (CZ)	D
Denmark - Occupational Exposure Limits	
Local name	1-Methoxy-2-propanol (Propylenglycolmonomethylether)
Grænsevædi (8 timer) (mg/m ³)	185 mg/m ³
Grænsevædi (8 timer) (ppm)	50 ppm
Grænsevædi (STEL) (mg/m ³)	370 mg/m ³
Grænsevædi (STEL) (ppm)	100 ppm
Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Finland - Occupational Exposure Limits	
Local name	1-Metoksi-2-propanoli
HTP-arvo (8h) (mg/m ³)	370 mg/m ³
HTP-arvo (8h) (ppm)	100 ppm
HTP-arvo (15 min)	560 mg/m ³
HTP-arvo (15 min) (ppm)	150 ppm
Huomautus (FI)	iho
France - Occupational Exposure Limits	
Local name	Ether méthylique du propylène-glycol (1-Méthoxy-2-propanol)
VME (mg/m ³)	188 mg/m ³
VME (ppm)	50 ppm
VLE (mg/m ³)	375 mg/m ³
VLE (ppm)	100 ppm
Note (FR)	Peau
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	1-Methoxy-2-propanol
Occupational exposure limit value (mg/m ³)	370 mg/m ³
Occupational exposure limit value (ppm)	100 ppm
Limitation of exposure peaks (mg/m ³)	740 mg/m ³
Limitation of exposure peaks (ppm)	200 ppm
TRGS 900 Remark	DFG,EU,Y

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1-Methoxy-2-propanol (107-98-2)	
Hungary - Occupational Exposure Limits	
Local name	1-METOXIPROPÁN-2-OL
AK-érték	375 mg/m ³
CK-érték	568 mg/m ³
Megjegyzések (HU)	b; EU1
Ireland - Occupational Exposure Limits	
OEL (8 hours ref) (mg/m ³)	375 mg/m ³
OEL (8 hours ref) (ppm)	100 ppm
OEL (15 min ref) (mg/m ³)	568 mg/m ³
OEL (15 min ref) (ppm)	150 ppm
Italy - Occupational Exposure Limits	
Local name	Metossipropanolo-2,1-
OEL TWA (mg/m ³)	375 mg/m ³
OEL TWA (ppm)	100 ppm
OEL STEL (mg/m ³)	568 mg/m ³
OEL STEL (ppm)	150 ppm
Latvia - Occupational Exposure Limits	
Local name	1-Metoksi-2-propanols (propilēnglikola monometilēteris, monopropilēnglikolmetilēteris)
OEL TWA (mg/m ³)	375 mg/m ³
OEL TWA (ppm)	100 ppm
OEL STEL (mg/m ³)	568 mg/m ³
OEL STEL (ppm)	150 ppm
Lithuania - Occupational Exposure Limits	
IPRV (mg/m ³)	190 mg/m ³
IPRV (ppm)	50 ppm
TPRV (mg/m ³)	300 mg/m ³
TPRV (ppm)	75 ppm
Netherlands - Occupational Exposure Limits	
Local name	1-Methoxy-2-propanol
Grenswaarde TGG 8H (mg/m ³)	375 mg/m ³
Grenswaarde TGG 15MIN (mg/m ³)	563 mg/m ³
Remark (MAC)	(H)
Poland - Occupational Exposure Limits	
Local name	1-Metoksypropan-2-ol
NDS (mg/m ³)	180 mg/m ³
NDSCh (mg/m ³)	360 mg/m ³
Portugal - Occupational Exposure Limits	
Local name	1-Metoxi-2-propanol (PGME)
OEL TWA (ppm)	50 ppm
OEL STEL (ppm)	100 ppm
Slovakia - Occupational Exposure Limits	
Local name	1-Metoxypropán-2-ol (propylénglykolmonometyléter)
NPHV (priemerná) (mg/m ³)	375 mg/m ³
NPHV (priemerná) (ppm)	100 ppm

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1-Methoxy-2-propanol (107-98-2)	
OEL STEL (mg/m ³)	568 mg/m ³
OEL STEL (ppm)	150 ppm
Upozornenie (SK)	(K)
Slovenia - Occupational Exposure Limits	
Local name	1-metoksi-2-propanol (propilenglikolmonometil eter)
OEL TWA (mg/m ³)	375 mg/m ³
OEL TWA (ppm)	100 ppm
OEL STEL (mg/m ³)	562.5 mg/m ³
OEL STEL (ppm)	150 ppm
Spain - Occupational Exposure Limits	
Local name	1-Metoxipropan-2-ol (Éter 1-metílico de propilenglicol)
VLA-ED (mg/m ³)	375 mg/m ³
VLA-ED (ppm)	100 ppm
VLA-EC (mg/m ³)	568 mg/m ³
VLA-EC (ppm)	150 ppm
Notes	vía dérmica,VLI
Sweden - Occupational Exposure Limits	
Local name	1-Metoxi-2-propanol
nivågränsvärde (NVG) (mg/m ³)	190 mg/m ³
nivågränsvärde (NVG) (ppm)	50 ppm
kortidsvärde (KTV) (mg/m ³)	300 mg/m ³
kortidsvärde (KTV) (ppm)	75 ppm
Anmärkning (SE)	H
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	375 mg/m ³
WEL TWA (ppm)	100 ppm
WEL STEL (mg/m ³)	560 mg/m ³
WEL STEL (ppm)	150 ppm
Norway - Occupational Exposure Limits	
Local name	1-metoksi-2-propanol (Propylenglykolmonometyleter)
Grenseverdier (AN) (mg/m ³)	180 mg/m ³
Grenseverdier (AN) (ppm)	50 ppm
Merknader (NO)	H
Switzerland - Occupational Exposure Limits	
VME (mg/m ³)	360 mg/m ³
MAK (ppm)	100 ppm 20 ppm (urina; fine dell'esposizione / del turno)
KZGW (mg/m ³)	720 mg/m ³
KZGW (ppm)	200 ppm

8.2. Exposure controls

Appropriate engineering controls:

Avoid creating mist or spray. Avoid splashing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure.

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Hand protection:

Wear suitable gloves. nitrile rubber gloves. EN374

Eye protection:

Chemical goggles or safety glasses. EN166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Approved respirator. EN 12083

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Solid marker containing liquid ink.
Colour	: red.
Odour	: Solvent.
Odour threshold	: No data available
pH	: ≥ 5.5 @ 25 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -144 °C
Boiling point	: 118 – 119 °C
Flash point	: 34 °C
Auto-ignition temperature	: 425 °C
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	: ≥ 0.83 @ 25 °C
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: ≥ 8 cP @ 25 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Alkali metals. ammonia. Peroxides. Oxidizer.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)

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Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

ATE (oral)	1666.667 mg/kg bodyweight
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ethanol (64-17-5)

LD50 oral rat	10470 mg/kg
LD50 dermal rabbit	> 20000 mg/kg
LC50 inhalation rat (mg/l)	133.8 mg/l/4h

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

Phenolic resin (25085-50-1)

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

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

ethanol (64-17-5)

IARC group	1 - Carcinogenic to humans,Alcoholic beverages
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9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylium chloride; Basic Red 1 (989-38-8)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : May cause drowsiness or dizziness.
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

ethanol (64-17-5)

LC50 fish 1	14200 mg/l
EC50 crustacea	5012 mg/l

1-Methoxy-2-propanol (107-98-2)

LC50 fish 1	20800 mg/l
EC50 crustacea	23300 mg/l
ErC50 (algae)	> 1000 mg/l

Phenolic resin (25085-50-1)

LC50 fish 1	0.26 mg/l 96 h
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12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
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ethanol (64-17-5)	
Biodegradation	> 96 % 28 d

1-Methoxy-2-propanol (107-98-2)	
Persistence and degradability	Readily biodegradable.
Biodegradation	96 % 28 d

Phenolic resin (25085-50-1)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % 28 d

12.3. Bioaccumulative potential

Dura-Ink® Retractable Red	
Bioaccumulative potential	Not established.

ethanol (64-17-5)	
Bioaccumulative potential	Not expected to bioaccumulate.

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

Phenolic resin (25085-50-1)	
Log Pow	4.67 – 6.2

12.4. Mobility in soil

Dura-Ink® Retractable Red	
Ecology - soil	Not established.

12.5. Results of PBT and vPvB assessment

Dura-Ink® Retractable Red	
PBT: not yet assessed	
vPvB: not yet assessed	

12.6. Other adverse effects

Additional information : Avoid release to the environment.

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.
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.
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. 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. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for

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one or more sectors of the environment

HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : Not regulated.
UN-No. (IMDG) : Not regulated.
UN-No. (IATA) : Not regulated.
UN-No. (ADN) : Not regulated.
UN-No. (RID) : Not regulated.

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated.
Proper Shipping Name (IMDG) : Not regulated.
Proper Shipping Name (IATA) : Not regulated.
Proper Shipping Name (ADN) : Not regulated.
Proper Shipping Name (RID) : Not regulated.

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated.

IMDG

Transport hazard class(es) (IMDG) : Not regulated.

IATA

Transport hazard class(es) (IATA) : Not regulated.

ADN

Transport hazard class(es) (ADN) : Not regulated.

RID

Transport hazard class(es) (RID) : Not regulated.

14.4. Packing group

Packing group (ADR) : Not regulated.
Packing group (IMDG) : Not regulated.
Packing group (IATA) : Not regulated.
Packing group (ADN) : Not regulated.
Packing group (RID) : Not regulated.

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : Per ICAO/IATA Regulations 3.4.1.1.2; IMDG Regulations 2.4.2.2.2 Product testing according to the UN regulations for classification of readily combustible solids section 33.2.1.4.3.1 – Preliminary Screening Test.
Inner filter with absorbed ink is removed from marker body. Filter tested is 20 mm diameter. End of filter is ignited using 2000°C torch. After 2 minutes only 50 mm length of cylinder has burned.
Product is not readily combustible solid of Division 4.1

14.6. Special precautions for user

Overland transport

Not regulated.

Transport by sea

Not regulated.

Air transport

Not regulated.

Inland waterway transport

Not regulated.

Rail transport

Not regulated.

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Dura-Ink® Retractable Red ; ethanol ; 1-Methoxy-2-propanol
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Dura-Ink® Retractable Red ; 1-Methoxy-2-propanol
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Dura-Ink® Retractable Red
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Dura-Ink® Retractable Red ; ethanol ; 1-Methoxy-2-propanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

VwVwS Annex reference : WGK 1, Slightly hazardous to water (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 : ethanol is listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : ethanol is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : ethanol is listed

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

Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 <H226;H302;H318;H336;H411>; Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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).

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	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	TSCA: Toxic Substances Control Act

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 H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic 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
Acute Tox. 4 (Oral)	H302	Calculation method
Eye Dam. 1	H318	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Chronic 2	H411	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.