

LA-CO Industries, Inc.

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 06/04/2015

Revision date: 13/07/2016

Supersedes: 26/10/2015

Version: 3

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

1.1. Product identifier

Product form : Mixture

Trade name : Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

Synonyms : Thermomelt® HEAT-STIK Marker 113 °F (45 °C), 125 °F (50, 52 °C), 131 °F (55 °C), 138 °F (59 °C, 60 °C), 156 °F (73, 75 °C), 188 °F (87 °C), 194 °F (90 °C), 200 °F (93 °C) 238 °F (114 °C), 256 °F (124, 125 °C), 269 °F (131, 132 °C), 319 °F (159, 160 °C), 325 °F (163 °C), 331 °F (165, 166 °C), 338 °F (170 °C), 344 °F (173 °C), 350 °F (175, 177, 180 °C), 375 °F (191 °C), 425 °F (218 °C), 438 °F (225 °C), 525 °F (274, 275 °C), 600 °F (316 °C), 650 °F (343, 350 °C), 850 °F (450, 454 °C), 900 °F (482 °C), 932 °F (500 °C), 950 °F (510 °C), 1000 °F (538 °C), 1022 °F (550 °C), 1100 °F (593, 600 °C), 1200 °F (649, 650 °C), 1250 °F (677 °C), 1300 °F (700, 704 °C), 1350 °F (732 °C), 1400 °F (750, 760 °C), 1425 °F (774 °C), 1450 °F (788 °C), 1480 °F (800, 804 °C), 1500 °F (816 °C), 1550 °F (843, 850 °C), 1600 °F (871 °C), 1650 °F (899, 900 °C), 1700 °F (927 °C), 1850 °F (1000, 1010 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 2000 °F (1100 °C), 2050 °F (1121 °C), 2200 °F (1200, 1204 °C)

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

Use of the substance/mixture : Temperature indicator

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

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 Minsk 220115	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/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 Tottleben Boulevard 1606 SOFIA	+359 2 9154 409

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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	Giflinjen 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, Nagyvárad tér 2	+36 80 20 11 99
ICELAND	Eitrunarmiðstöðin	Eitrunarmiðstöðin 108 Reykjavik	+354 543 22 22
IRELAND	National Poisons Information Centre	Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2166
LATVIA	Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs	2 Hipocrate Street LV 1038 Riga	+371 67 04 24 73
LITHUANIA	Apsinuodijimų kontrolės ir informacijos biuras	Siltnamiu 29 2043 Vilnius	+370 5 236 20 52/+370 687 53 378
MALTA	Medicines & Poisons Info Office	Mater Dei Hospital, Msida MSD 2090 Malta	25450000
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, NB this service is only available to health professionals	Huispostnummer B.00.118, PO Box 85500 3508 GA Utrecht	+31 30 274 88 88
PORTUGAL	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica (INEM)	Rua Almirante Barroso, 36 1000-013 Lisboa	808 250 143 (for use only in Portugal), +351 21 330 3284
ROMANIA	Biroul pentru Regulamentul Sanitar International si Informare Toxicologica	Str. Dr. Leonte Anastasievici Nr.1-3, Sector 5 50463 Bucuresti	+40 21 318 36 06
SLOVAKIA	Národné toxikologické informačné centrum University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
SPAIN	Servicio de Información Toxicológica Instituto Nacional de Toxicología, Departamento de Madrid	Calle Luis Cabrera 9 E-28002 Madrid	+34 91 562 04 20
SWEDEN	Giflinformationscentralen 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)

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

EUH-statements

: EUH210 - Safety data sheet available on request
 EUH208 - Contains 4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%)(2786-76-7). May produce an allergic reaction

Unknown acute toxicity (CLP: Classification, Labelling, Packaging.) - SDS

: 0% of the mixture consists of ingredient(s) of unknown acute oral toxicity
 0% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 0% percent of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity

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

Comments : Variable

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	0 – 98	Not classified
Sodium chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0 – 98	Not classified
potassium sulfate	(CAS No) 7778-80-5 (EC no) 231-915-5	0 – 98	Not classified
Sodium sulfate	(CAS No) 7757-82-6 (EC no) 231-820-9	0 – 95	Not classified
2',4'-dimethylacetoacetanilide	(CAS No) 97-36-9 (EC no) 202-576-0	0 – 95	Acute Tox. 4 (Oral), H302
1-[(2,4-dinitrophenyl)azo]-2-naphthol C.I. Pigment Orange 5	(CAS No) 3468-63-1 (EC no) 222-429-4	0 – 70	Not classified
calcium sulfate	(CAS No) 7778-18-9 (EC no) 231-900-3	0 – 35	Not classified
limestone	(CAS No) 1317-65-3 (EC no) 215-279-6	0 - 25	Not classified
adipic acid	(CAS No) 124-04-9 (EC no) 204-673-3 (EC index no) 607-144-00-9	0 – 7	Eye Irrit. 2, H319
dilithium molybdate	(CAS No) 13568-40-6 (EC no) 236-977-7	0 – 7	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
myristic acid	(CAS No) 544-63-8 (EC no) 208-875-2	0 – 7	Eye Irrit. 2, H319
2-methoxy-1-methylethyl acetate	(CAS No) 108-65-6 (EC no) 203-603-9 (EC index no) 607-195-00-7	0 – 3	Flam. Liq. 3, H226

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Talc	(CAS No) 14807-96-6 (EC no) 238-877-9	0 – 2	Not classified
1-Methoxy-2-propanol	(CAS No) 107-98-2 (EC no) 203-539-1 (EC index no) 603-064-00-3	0 – 2	Flam. Liq. 3, H226 STOT SE 3, H336
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (Note P)	(CAS No) 64742-95-6 (EC no) 265-199-0 (EC index no) 649-356-00-4 (REACH-no) 01-2119455851-35	0 – 2	Asp. Tox. 1, H304
1,2,4-trimethylbenzene	(CAS No) 95-63-6 (EC no) 202-436-9 (EC index no) 601-043-00-3	0 – 2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
Iron oxide red	(CAS No) 1309-37-1 (EC no) 215-168-2	0 – 2	Aquatic Chronic 2, H411
calcium carbonate	(CAS No) 471-34-1 (EC no) 207-439-9	0 – 0.5	Not classified
4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%)	(CAS No) 2786-76-7 (EC no) 220-509-3	0 - 0.1	Skin Sens. 1, H317
cumene (Note C)	(CAS No) 98-82-8 (EC no) 202-704-5 (EC index no) 601-024-00-X	< 0.1	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Silicon dioxide (amorphous)	(CAS No) 7631-86-9 (EC no) 231-545-4	< 0.1	Not classified
barium sulfate	(CAS No) 7727-43-7 (EC no) 231-784-4	< 0.1	Not classified
Carbon black	(CAS No) 1333-86-4 (EC no) 215-609-9	< 0.1	Carc. 2, H351
Silicon dioxide (cristobalite)	(CAS No) 14808-60-7 (EC no) 238-878-4	< 0.1	Carc. 1A, H350i

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note P : The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102)-P260-P262- P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.

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.
First-aid measures after skin contact	: Wash skin with mild soap and water.
First-aid measures after eye contact	: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth. 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 : Not expected to present a significant hazard under anticipated conditions of normal use.

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.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No specific fire or explosion hazard.
Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. metallic oxides. Sulphur oxides.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Avoid creating or spreading dust.

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

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid generating dust.
Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal. Minimize generation of dust.

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

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust, fume.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.
Incompatible products : Strong acids. Strong oxidizers. Strong bases.
Incompatible materials : Sources of ignition.
Storage area : Store in a dry place.

7.3. Specific end use(s)

Temperature indicator.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

adipic acid (124-04-9)		
Finland	HTP-arvo (8h) (mg/m ³)	5 mg/m ³
Poland	Remark (PL)	pyly
Spain	VLA-ED (mg/m ³)	5 mg/m ³
limestone (1317-65-3)		
Belgium	Limit value (mg/m ³)	10 mg/m ³
Belgium	Remark (BE)	(carbonate de)
Hungary	AK-érték	10 mg/m ³
Hungary	Megjegyzések (HU)	inhalable aerosol
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Spain	Notes	inhalable aerosol
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (total dust) 4 mg/m ³ (respirable dust)
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)
Iron oxide red (1309-37-1)		
Austria	MAK (mg/m ³)	10 mg/m ³ (einatembare Fraktion) 5 mg/m ³ (aveolengängige Fraktion)
Austria	MAK Short time value (mg/m ³)	20 mg/m ³ (einatembare Fraktion) max. 2x60 min./Schicht 10 mg/m ³ (aveolengängige Fraktion) max. 2x60 min./Schicht
Belgium	Limit value (mg/m ³)	5 mg/m ³
Belgium	Limit value (ppm)	2 ppm
Belgium	Remark (BE)	(trioxyde de; fumées, en Fe)
Denmark	Grænseværdie (langvarig) (mg/m ³)	3.5 mg/m ³
Denmark	Grænseværdie (kortvarig) (mg/m ³)	7 mg/m ³
Denmark	Anmærkninger (DK)	(Jernoxid, total dust)
Finland	HTP-arvo (8h) (mg/m ³)	5 mg/m ³
Finland	Huomautus (FI)	(Fe)
France	VME (mg/m ³)	10 mg/m ³ (oxyde rouge synthétique) 5 mg/m ³ (trioxide de di-,fumées)
Hungary	AK-érték	6 mg/m ³
Hungary	Megjegyzések (HU)	(respirabilis por)
Ireland	OEL (8 hours ref) (mg/m ³)	5 mg/m ³ (Iron oxide, fume as Fe) 10 mg/m ³ (Rouge total inhalable dust) 4 mg/m ³ (Rouge total respirable dust)
Ireland	OEL (15 min ref) (mg/m ³)	10 mg/m ³ (Iron oxide, fume as Fe)
Lithuania	IPRV (mg/m ³)	3.5 mg/m ³
Lithuania	Remark (LT)	(biūrėk IX skyriaus 3 pastabà.)
Poland	NDS (mg/m ³)	5 mg/m ³
Poland	NDSch (mg/m ³)	10 mg/m ³
Poland	Remark (PL)	(dymy)

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Iron oxide red (1309-37-1)		
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
Spain	VLA-ED (mg/m ³)	5 mg/m ³
Spain	Notes	(Óxido de hierro(III) (polvo y humos), como Fe)
Sweden	nivågränsvärde (NVG) (mg/m ³)	3.5 mg/m ³
Sweden	Anmärkning (SE)	(Järnoxid, respirabelt damm)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (Rouge, inhalable fraction) 4 mg/m ³ (Rouge, respirable fraction) 5 mg/m ³ (fume, as Fe)
United Kingdom	WEL STEL (mg/m ³)	10 mg/m ³ (fume, as Fe)
Norway	Grenseverdier (AN) (mg/m ³)	3 mg/m ³
Norway	Merknader (NO)	(Jern(III)oksid, beregnet som Fe)
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(alveolengängiger Staub)
Potassium chloride (7447-40-7)		
Lithuania	IPRV (mg/m ³)	5 mg/m ³
Sodium sulfate (7757-82-6)		
Lithuania	IPRV (mg/m ³)	10 mg/m ³
Talc (14807-96-6)		
Austria	MAK (mg/m ³)	2 mg/m ³
Austria	Remark (AT)	(alveolengängige Fraktion)
Belgium	Limit value (mg/m ³)	2 mg/m ³
Belgium	Remark (BE)	(sans fibre d'amiante)
Denmark	Grænseværdie (langvarig) (mg/m ³)	0.3 fibers/cm ³
Denmark	Anmærkninger (DK)	(K, Talkum indeholdende fibre)
Finland	HTP-arvo (8h) (mg/m ³)	2 mg/m ³ (Talkki, rakeinen; hengittävä pöly) 1 mg/m ³ (Talkki, rakeinen; alveolijae) 0.5 mg/m ³ (Talkki, kuitumainen)
Hungary	AK-érték	2 mg/m ³
Hungary	Megjegyzések (HU)	respirable aerosol
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ total inhalable dust 0.8 mg/m ³ respirable dust
Lithuania	IPRV (mg/m ³)	2 mg/m ³ (ikvėpiamoji frakcija) 1 mg/m ³ (alveolinė frakcija)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.25 mg/m ³
Netherlands	Remark (MAC)	respirable aerosol
Spain	VLA-ED (mg/m ³)	2 mg/m ³
Spain	Notes	d,e
Sweden	nivågränsvärde (NVG) (mg/m ³)	2 mg/m ³ total dust, 1 1 mg/m ³ respirable dust, 1
United Kingdom	Local name	Talc
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	Remark (WEL)	respirable aerosol
Norway	Grenseverdier (AN) (mg/m ³)	3 mg/m ³ (respirabelt støv) 6 mg/m ³ (totalstøv)
Switzerland	VME (mg/m ³)	2 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

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Carbon black (1333-86-4)		
Belgium	Limit value (mg/m ³)	3.5 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	3.5 mg/m ³
Denmark	Anmærkninger (DK)	K
Finland	HTP-arvo (8h) (mg/m ³)	3.5 mg/m ³
Finland	HTP-arvo (15 min)	7 mg/m ³
France	VME (mg/m ³)	3.5 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	3.5 mg/m ³
Ireland	OEL (15 min ref) (mg/m ³)	7 mg/m ³
Spain	VLA-ED (mg/m ³)	3.5 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	3 mg/m ³
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m ³)	3.5 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	7 mg/m ³
Norway	Grenseverdier (AN) (mg/m ³)	3.5 mg/m ³
Australia	TWA (mg/m ³)	3.5 mg/m ³
Australia	STEL (mg/m ³)	7 mg/m ³
potassium sulfate (7778-80-5)		
Lithuania	IPRV (mg/m ³)	10 mg/m ³
calcium sulfate (7778-18-9)		
Belgium	Remark (BE)	(sulfate de)
Hungary	Megjegyzések (HU)	(respirable aerosol)
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
United Kingdom	WEL TWA (mg/m ³)	4 mg/m ³ (respirable dust) 10 mg/m ³ (inhalable dust)
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)
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

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

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1-Methoxy-2-propanol (107-98-2)		
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
Australia	TWA (mg/m ³)	375 mg/m ³
Australia	TWA (ppm)	100 ppm
Australia	STEL (mg/m ³)	1120 mg/m ³
Australia	STEL (ppm)	300 ppm
1,2,4-trimethylbenzene (95-63-6)		
EU	IOELV TWA (mg/m ³)	100 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
Austria	MAK (mg/m ³)	100 mg/m ³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m ³)	150 mg/m ³ max. 4x5 min./Schicht
Austria	MAK Short time value (ppm)	30 ppm max. 4x5 min./Schicht
Czech Republic	Expoziční limity (PEL) (mg/m ³)	100 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	20.3 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	250 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	50.75 ppm
Czech Republic	Remark (CZ)	D
Denmark	Grænseværdie (langvarig) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	200 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Finland	HTP-arvo (8h) (mg/m ³)	100 mg/m ³
Finland	HTP-arvo (8h) (ppm)	20 ppm
France	VME (mg/m ³)	100 mg/m ³
France	VME (ppm)	20 ppm
France	VLE (mg/m ³)	250 mg/m ³
France	VLE (ppm)	50 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	100 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm

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1,2,4-trimethylbenzene (95-63-6)		
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	200 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Hungary	AK-érték	100 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	Notes (IE)	IOELV
Lithuania	IPRV (mg/m ³)	100 mg/m ³
Lithuania	IPRV (ppm)	20 ppm
Lithuania	Remark (LT)	Ta pati RV, iðreikðta mg/m ³ , yra taikoma kitiems polialkilbenzenams.
Netherlands	Grenswaarde TGG 8H (mg/m ³)	100 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	200 mg/m ³
Poland	NDS (mg/m ³)	100 mg/m ³
Poland	NDSch (mg/m ³)	170 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Spain	VLA-ED (mg/m ³)	100 mg/m ³
Spain	VLA-ED (ppm)	20 ppm
Spain	Notes	VLI
Sweden	nivågränsvärde (NVG) (mg/m ³)	120 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	170 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm
Sweden	Anmärkning (SE)	55
United Kingdom	WEL TWA (mg/m ³)	125 mg/m ³
United Kingdom	WEL TWA (ppm)	25 ppm
Norway	Grenseverdier (AN) (mg/m ³)	100 mg/m ³
Norway	Grenseverdier (AN) (ppm)	20 ppm
cumene (98-82-8)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	200 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Finland	Huomautus (FI)	iho
France	Note (FR)	Peau
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	250 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	50 ppm
Germany	TRGS 903 (BGW)	2 mg/l Isopropylbenzol (Blut; Expositionsende bzw. Schichtende) 50 mg/l 2-Phenylpropan-2-ol (Urin; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	Upozornenie (SK)	(K)
Spain	VLA-ED (mg/m ³)	100 mg/m ³
Spain	VLA-ED (ppm)	20 ppm
Spain	VLA-EC (mg/m ³)	250 mg/m ³

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cumene (98-82-8)		
Spain	VLA-EC (ppm)	50 ppm
Spain	Notes	vía dérmica, VLI
Sweden	Anmärkning (SE)	H
2-methoxy-1-methylethyl acetate (108-65-6)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	550 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)	270 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	50 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	275 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	Upozornenie (SK)	(K)
Spain	VLA-ED (mg/m ³)	275 mg/m ³
Spain	VLA-ED (ppm)	50 ppm
Spain	VLA-EC (mg/m ³)	550 mg/m ³
Spain	VLA-EC (ppm)	100 ppm
Spain	Notes	VLI
Sweden	Anmärkning (SE)	H
Silicon dioxide (amorphous) (7631-86-9)		
Austria	MAK (mg/m ³)	4 mg/m ³
Austria	Remark (AT)	(einatembare Fraktion)
Finland	HTP-arvo (8h) (mg/m ³)	5 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	4 mg/m ³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Ireland	OEL (8 hours ref) (mg/m ³)	2.4 mg/m ³ 6 mg/m ³ (total inhalable dust)
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Spain	Notes	(respirable aerosol)
United Kingdom	WEL TWA (mg/m ³)	6 mg/m ³ (inhalable aerosol) 2.4 mg/m ³ (respirable aerosol)
Switzerland	VME (mg/m ³)	4 mg/m ³
Switzerland	Remark (CH)	(einatembarer Staub)
Australia	TWA (mg/m ³)	2 mg/m ³
calcium carbonate (471-34-1)		
France	VME (mg/m ³)	10 mg/m ³
France	Note (FR)	inhalable aerosol
Hungary	AK-érték	10 mg/m ³
Hungary	Megjegyzések (HU)	inhalable aerosol
Poland	NDS (mg/m ³)	10 mg/m ³
Poland	Remark (PL)	pyly
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ inhalable aerosol 4 mg/m ³ respirable aerosol
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)

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barium sulfate (7727-43-7)		
Belgium	Limit value (mg/m ³)	10 mg/m ³
Belgium	Remark (BE)	(sulfate de)
Ireland	OEL (8 hours ref) (mg/m ³)	2 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Spain	Notes	e
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ inhalable aerosol 4 mg/m ³ respirable aerosol
Silicon dioxide (cristobalite) (14808-60-7)		
Austria	MAK (mg/m ³)	0.15 mg/m ³
Austria	Remark (AT)	(alveolengängige Fraktion; Jahres-Miw)
Belgium	Limit value (mg/m ³)	0.1 mg/m ³
Belgium	Remark (BE)	(poussières alvéolaires)
Denmark	Grænseværdie (langvarig) (mg/m ³)	0.3 mg/m ³ (inhalable aerosol) 0.1 mg/m ³ (K, respirable aerosol)
Denmark	Grænseværdie (kortvarig) (mg/m ³)	0.6 mg/m ³ (inhalable aerosol) 0.2 mg/m ³ (K, respirable aerosol)
Finland	HTP-arvo (8h) (mg/m ³)	0.05 mg/m ³
Finland	Huomautus (FI)	(alveolijae)
France	VME (mg/m ³)	0.1 mg/m ³
France	Note (FR)	(poussières alvéolaires de quartz)
Hungary	AK-érték	0.15 mg/m ³
Hungary	Megjegyzések (HU)	(respirable aerosol)
Ireland	OEL (8 hours ref) (mg/m ³)	0.1 mg/m ³
Lithuania	IPRV (mg/m ³)	0.1 mg/m ³
Lithuania	Remark (LT)	(Piūrėk IX skyriaus 3 pastabà)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.075 mg/m ³
Netherlands	Remark (MAC)	(Voor respirabel stof) (kankerverwekkende stoff)
Poland	NDS (mg/m ³)	2 mg/m ³ (krzemionke powyzej 50%; pyl calkowity) 0.3 mg/m ³ (krzemionke powyzej 50%; pyl respirabilny) 2 mg/m ³ (krzemionke od 2% do 50%; pyl calkowity) 0.3 mg/m ³ (krzemionke od 2% do 50%; pyl respirabilny)
Slovakia	NPHV (priemerná) (mg/m ³)	0.1 mg/m ³
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ludi, R)
Spain	VLA-ED (mg/m ³)	0.1 mg/m ³
Spain	Notes	(respirable aerosol)
Sweden	nivågränsvärde (NVG) (mg/m ³)	0.1 mg/m ³
Sweden	Anmärkning (SE)	(respirabelt damm; M, 1)
Switzerland	VME (mg/m ³)	0.15 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)

8.2. Exposure controls

Appropriate engineering controls

: Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Ensure good ventilation of the work station.

Personal protective equipment

: Avoid all unnecessary exposure.

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Hand protection:

It is a good industrial hygiene practice to minimize skin contact. If dust is formed: Wear dust impervious gloves. EN 374

Eye protection:

In case of dust production: protective goggles. EN 166

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. EN 140. EN 136

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	: Solid
Appearance	: A solid crayon-like marker.
Colour	: Various.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: > 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 : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

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10.4. Conditions to avoid

Avoid creating or spreading dust. Direct sunlight. Keep away from sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. metallic oxides. Potassium oxides. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Not classified. Dermal: Not classified. Inhalation:dust,mist: Not classified. (Based on available data, the classification criteria are not met)

2',4'-dimethylacetoacetanilide (97-36-9)	
LD50 oral rat	1995 mg/kg
ATE CLP (oral)	1995.000 mg/kg bodyweight
adipic acid (124-04-9)	
LD50 oral rat	5560 mg/kg
LD50 dermal rabbit	7940 ml/kg
LC50 inhalation rat (mg/l)	> 7.7 mg/l/4h
ATE CLP (oral)	5560.000 mg/kg bodyweight
limestone (1317-65-3)	
LD50 oral rat	6450 mg/kg
ATE CLP (oral)	6450.000 mg/kg bodyweight
Iron oxide red (1309-37-1)	
LD50 oral rat	> 10000 mg/kg
LD50 dermal rat	5500 mg/kg
LC50 inhalation rat (mg/l)	5.05 mg/l/4h
ATE CLP (dermal)	5500.000 mg/kg bodyweight
ATE CLP (vapours)	5.050 mg/l/4h
ATE CLP (dust,mist)	5.050 mg/l/4h
Potassium chloride (7447-40-7)	
LD50 oral rat	3020 mg/kg
LD50 oral	2430 mg/kg
ATE CLP (oral)	3020.000 mg/kg bodyweight
Sodium sulfate (7757-82-6)	
LD50 oral rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 2.4 mg/l/4h
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m ³ 4 h
Sodium chloride (7647-14-5)	
LD50 oral rat	3550 mg/kg
LD50 dermal rat	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 42 mg/l/4h 1 hour
LC50 inhalation rat (Dust/Mist - mg/l/4h)	10.5 mg/l/4h
ATE CLP (oral)	3550.000 mg/kg bodyweight
ATE CLP (dust,mist)	10.500 mg/l/4h
potassium sulfate (7778-80-5)	
LD50 oral rat	> 2000 mg/kg OECD 425

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potassium sulfate (7778-80-5)	
LD50 dermal rat	> 2000 mg/kg OECD Test Guideline 402
LC50 inhalation rat (mg/l)	> 1.2 mg/l/4h OECD Guideline 433
calcium sulfate (7778-18-9)	
LD50 oral rat	> 1581 mg/kg
LC50 inhalation rat (mg/l)	> 3.26 mg/l/4h
1-[(2,4-dinitrophenyl)azo]-2-naphthol C.I. Pigment Orange 5 (3468-63-1)	
LD50 oral rat	> 15000 mg/kg
LD50 dermal rat	> 2000 mg/kg
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
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5610 mg/l/4h
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	3415 mg/kg
LD50 dermal rat	3440 mg/kg
LC50 inhalation rat (ppm)	954 ppm
ATE CLP (oral)	3415.000 mg/kg bodyweight
ATE CLP (dermal)	3440.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
cumene (98-82-8)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	10600 mg/kg
LC50 inhalation rat (mg/l)	22.1 mg/l
LC50 inhalation rat (ppm)	4510 ppm/4h
ATE CLP (oral)	4000.000 mg/kg bodyweight
ATE CLP (dermal)	10600.000 mg/kg bodyweight
ATE CLP (gases)	4510.000 ppmv/4h
ATE CLP (vapours)	22.100 mg/l/4h
ATE CLP (dust,mist)	22.100 mg/l/4h
2-methoxy-1-methylethyl acetate (108-65-6)	
LD50 oral rat	8532 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (ppm)	4345 ppm 6 h
ATE CLP (oral)	8532.000 mg/kg bodyweight
Silicon dioxide (amorphous) (7631-86-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 58.8 mg/l/4h
calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 3 mg/l/4h

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barium sulfate (7727-43-7)	
LD50 oral rat	307 g/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	307000.000 mg/kg bodyweight

myristic acid (544-63-8)	
LD50 oral rat	> 10000 mg/kg

4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%) (2786-76-7)	
LD50 oral rat	> 15000 mg/kg
LC50 inhalation rat (mg/l)	> 1580 mg/m ³ 4 h

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
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)

calcium sulfate (7778-18-9)	
NOAEL (chronic, oral, animal/male, 2 years)	8400 mg/kg bodyweight

barium sulfate (7727-43-7)	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	75 mg/kg bodyweight

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)

potassium sulfate (7778-80-5)	
NOAEL (oral, rat)	>= 1500 mg/kg bodyweight Animal testing did not show any effects on fertility, mutagenic, or teratogenic effects.

Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
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adipic acid (124-04-9)	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight/day

potassium sulfate (7778-80-5)	
NOAEL (oral, rat, 90 days)	256 mg/kg bodyweight/day

Acute toxicity	: Not classified
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
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2',4'-dimethylacetoacetanilide (97-36-9)	
LC50 fish 1	250 (250 - 350) mg/l

adipic acid (124-04-9)	
LC50 fish 1	>= 1000 mg/l 96 h
EC50 Daphnia 1	46 mg/l 48 h

limestone (1317-65-3)	
LC50 fish 1	> 200 mg/l

Iron oxide red (1309-37-1)	
EC50 Daphnia 1	> 100 mg/l

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Potassium chloride (7447-40-7)	
LC50 fish 1	880 mg/l Pimephales promelas 96 hr
EC50 Daphnia 1	440 - 880 48 hr
ErC50 (algae)	> 100 mg/l
NOEC (chronic)	500 mg/l 7 day
Sodium chloride (7647-14-5)	
LC50 fish 1	5840 mg/l 96 hour; Lepomis macrochirus
EC50 Daphnia 1	4136 mg/l 48 h
NOEC (acute)	1500 mg/l Daphnia; 7 d
NOEC chronic fish	252 mg/l 33 day
potassium sulfate (7778-80-5)	
LC50 fish 1	680 mg/l 96h Pimephales promelas
EC50 Daphnia 1	720 mg/l 48h
ErC50 (algae)	2700 mg/l Chlorella vulgaris
calcium sulfate (7778-18-9)	
LC50 fish 1	> 56000 mg/l 96 h
1-[(2,4-dinitrophenyl)azo]-2-naphthol C.I. Pigment Orange 5 (3468-63-1)	
LC50 fish 1	> 400 mg/l 48 h
EC50 Daphnia 1	> 100 mg/l 24 h
1-Methoxy-2-propanol (107-98-2)	
LC50 fish 1	20800 mg/l
EC50 Daphnia 1	23300 mg/l
ErC50 (algae)	> 1000 mg/l
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
LC50 fish 1	8.2 mg/l
EC50 Daphnia 1	4.5 mg/l
EC50 other aquatic organisms 1	3.7 mg/l
NOEC (acute)	0.5 mg/l
1,2,4-trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l
LC50 other aquatic organisms 1	3.6 mg/l
EC50 other aquatic organisms 1	2.356 mg/l
cumene (98-82-8)	
LC50 fish 1	4.8 mg/l
EC50 other aquatic organisms 1	2.14 mg/l
NOEC (acute)	1.9 mg/l
2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 fish 1	100 - 180 mg/l
EC50 Daphnia 1	> 500 mg/l 48 h
ErC50 (algae)	> 1000 mg/l
Silicon dioxide (amorphous) (7631-86-9)	
LC50 fish 1	> 10000 mg/l
EC50 Daphnia 1	> 1000 mg/l
calcium carbonate (471-34-1)	
LC50 fish 1	> 100 % v/v, 96 h
EC50 Daphnia 1	> 100 % v/v, 48 h
barium sulfate (7727-43-7)	
LC50 fish 1	> 3.5 mg/l 96 h

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

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barium sulfate (7727-43-7)	
EC50 Daphnia 1	14500 µg/l 48 h
myristic acid (544-63-8)	
LC50 fish 1	> 10000 mg/l 48 h
EC50 Daphnia 1	> 27 mg/l 16 h
4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%) (2786-76-7)	
LC50 fish 1	> 500 mg/l 96 h
EC50 Daphnia 1	> 110 mg/l 48 h

12.2. Persistence and degradability

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F	
Persistence and degradability	Not established.
2',4'-dimethylacetoacetanilide (97-36-9)	
Biodegradation	25 % 28 d
adipic acid (124-04-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90 % 5 d
limestone (1317-65-3)	
Persistence and degradability	Not readily biodegradable.
Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.
1-[[2,4-dinitrophenyl]azo]-2-naphthol C.I. Pigment Orange 5 (3468-63-1)	
Persistence and degradability	Readily biodegradable.
1-Methoxy-2-propanol (107-98-2)	
Persistence and degradability	Readily biodegradable.
Biodegradation	96 % 28 d
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
Persistence and degradability	Not established.
cumene (98-82-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.
2-methoxy-1-methylethyl acetate (108-65-6)	
Persistence and degradability	Readily biodegradable.
Biodegradation	89 % 10 d
Silicon dioxide (amorphous) (7631-86-9)	
Persistence and degradability	Product persists.
myristic acid (544-63-8)	
Persistence and degradability	Readily biodegradable.
Biodegradation	99 % 15 d
4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%) (2786-76-7)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % 28 d

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12.3. Bioaccumulative potential

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F	
Bioaccumulative potential	Not established.
2',4'-dimethylacetoacetanilide (97-36-9)	
Log Pow	1.4
adipic acid (124-04-9)	
BCF fish 1	3.162
Log Pow	0.093
limestone (1317-65-3)	
Bioaccumulative potential	Does not bioaccumulate significantly.
Sodium sulfate (7757-82-6)	
Bioconcentration factor (BCF REACH)	0.5
Bioaccumulative potential	Not expected to bioaccumulate.
potassium sulfate (7778-80-5)	
Bioaccumulative potential	This product is not bioaccumulating.
1-[(2,4-dinitrophenyl)azo]-2-naphthol C.I. Pigment Orange 5 (3468-63-1)	
BCF fish 1	< 2.9 l/kg
Log Pow	2.45
1-Methoxy-2-propanol (107-98-2)	
Bioaccumulative potential	Not expected to bioaccumulate.
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
Bioaccumulative potential	Not established.
cumene (98-82-8)	
Bioaccumulative potential	Not established.
2-methoxy-1-methylethyl acetate (108-65-6)	
Log Pow	0.43
barium sulfate (7727-43-7)	
BCF fish 1	68.4 L/kg
myristic acid (544-63-8)	
Log Pow	5.2 (5.2 - 6.11)
4-[[4-(aminocarbonyl)phenyl]azo]-N-(2-ethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide, C.I. Pigment Red 170 (naphthol <1%) (2786-76-7)	
BCF fish 1	53 l/kg
Log Pow	1.28

12.4. Mobility in soil

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F	
Ecology - soil	No additional information available.

12.5. Results of PBT and vPvB assessment

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F	
PBT: not yet assessed	

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

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Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

vPvB: not yet assessed

Component	
Potassium chloride (7447-40-7)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
Sodium chloride (7647-14-5)	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
potassium sulfate (7778-80-5)	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

Additional information : 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.

European List of Waste (LoW) code : For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used

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.

Thermomelt® HEAT-STIK Markers : 113 °F, 125 °F, 131 °F, 138 °F, 156 °F, 163 °F, 188 °F, 194 °F, 200 °F, 238 °F, 256 °F, 269 °F, 319 °F, 325 °F, 331 °F, 338 °F, 344 °F, 350 °F, 375 °F, 425 °F, 438 °F, 525 °F, 600 °F, 650 °F, 850 °F, 900 °F, 932 °F, 950 °F, 1000 °F, 1022 °F, 1100 °F, 1150 °F, 1200 °F, 1250 °F, 1300 °F, 1350 °F, 1400 °F, 1425 °F, 1450 °F, 1480 °F, 1500 °F, 1550 °F, 1600 °F, 1650 °F, 1700 °F, 1850 °F, 1900 °F, 1950 °F, 2000 °F, 2050 °F, 2200 °F

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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 : No

Marine pollutant : No

Other information : No supplementary information available

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

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 %

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

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

Netherlands

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SZW-lijst van kankerverwekkende stoffen	: Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%), Silicon dioxide (cristobalite) are listed
SZW-lijst van mutagene stoffen	: Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Added. Product.

Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	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 Weighted Average

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. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1A	Carcinogenicity (inhalation) Category 1A
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

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Flam. Liq. 3	Flammable liquids, Category 3
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, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
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
H350i	May cause cancer by inhalation
H351	Suspected of causing cancer
H411	Toxic to aquatic life with long lasting effects
EUH208	Contains . May produce an allergic reaction
EUH210	Safety data sheet available on request

SDS Prepared by: The Redstone Group, LLC
 6077 Frantz Rd.
 Suite 206
 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