

**Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)**

### Safety Data Sheet

according to Regulation (EU) 2015/830

SDS Ref.: LACO1504036

Date of issue: 6/18/2015 Revision date: 1/7/2019 Supersedes: 1/6/2016 Version: 4.0

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

### 1.1. Product identifier

Product form : Mixture  
 Trade name : Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)

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

#### 1.2.1. Relevant identified uses

Main use category : 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 Combès.

01150.BLYES.France.

Phone: +33 (0)4 74 46 23 23

Fax: +33 (0)4 74 46 23 29

E-mail: info@eu.laco.com

Web: http://www.markal.com

### 1.4. Emergency telephone number

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



EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 Minsk 220115	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245
BULGARIA	Национален токсикологичен информационен център National Clinical Toxicology Centre, Emergency Medical Institute "Pirogov"	21 Tottleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402

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EU Member State	Officieel adviesorgaan	Adres	Noodnummer
DENMARK	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240
GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, 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 Vergiftigen 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]

Not classified

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### 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.

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

: 95.14% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
173.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
173.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

#### 2.3. Other hazards

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]
sebacic acid	(CAS-No.) 111-20-6 (EC-No.) 203-845-5	0 - 95	Not classified
potassium sulfate	(CAS-No.) 7778-80-5 (EC-No.) 231-915-5	0 - 95	Not classified
succinimide	(CAS-No.) 123-56-8 (EC-No.) 204-635-6	0 - 95	Not classified
barium sulfate	(CAS-No.) 7727-43-7 (EC-No.) 231-784-4	0 - 90	Not classified
2',4'-dimethylacetoacetanilide	(CAS-No.) 97-36-9 (EC-No.) 202-576-0	0 - 85	Acute Tox. 4 (Oral), H302
calcium sulfate	(CAS-No.) 7778-18-9 (EC-No.) 231-900-3	0 - 55	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
salicylamide	(CAS-No.) 65-45-2 (EC-No.) 200-609-3	0 - 9	Acute Tox. 4 (Oral), H302
Iron oxide red	(CAS-No.) 1309-37-1 (EC-No.) 215-168-2	0 - 2	Aquatic Chronic 2, H411
butyl 4-hydroxybenzoate	(CAS-No.) 94-26-8 (EC-No.) 202-318-7	0 - 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
phenyl salicylate	(CAS-No.) 118-55-8 (EC-No.) 204-259-2	0 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
lithium sulphate	(CAS-No.) 10377-48-7 (EC-No.) 233-820-4	0 - 5	Acute Tox. 4 (Oral), H302
Polyethylene Glycol	(CAS-No.) 25322-68-3 (EC-No.) 500-038-2	0 - 3	Not classified

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manganese dioxide	(CAS-No.) 1313-13-9 (EC-No.) 215-202-6 (EC Index-No.) 025-001-00-3	0 - 0.5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332
Aluminum oxide	(CAS-No.) 1344-28-1 (EC-No.) 215-691-6	0 - 0.5	Not classified
Silicon dioxide (cristobalite)	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	<0.1	Carc. 1A, H350i
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	< 0.1	Carc. 2, H351

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. Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of water/....
First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.

### 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. Sand.
Unsuitable extinguishing media	: None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: No specific fire or explosion hazard. Burning produces irritating, toxic and noxious fumes.
Hazardous decomposition products in case of fire	: Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. 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 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	: Avoid creating or spreading dust.
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#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable gloves.
Emergency procedures	: Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment	: Wear suitable gloves.
Emergency procedures	: Ventilate area.

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### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Avoid generating dust. Contain and collect as any solid.

Methods for cleaning up : Minimise generation of dust. On land, sweep or shovel into suitable containers.

### 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

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 container tightly closed.

Incompatible products : Strong oxidizers. Strong bases.

Prohibitions on mixed storage : Keep away from incompatible materials.

Storage area : Store in dry, cool, well-ventilated area.

### 7.3. Specific end use(s)

Temperature indicator.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

barium sulfate (7727-43-7)		
Belgium	Limit value (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Belgium	Remark (BE)	(sulfate de)
Germany	TRGS 900 Local name	Bariumsulfat
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	1.25 mg/m <sup>3</sup> A (mg/m <sup>3</sup> ) 10 mg/m <sup>3</sup> E (mg/m <sup>3</sup> )
Germany	TRGS 900 Remark	AGS,DFG
Germany	TRGS 910 Acceptable concentration notes	
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Portugal	Local name	Sulfato de bário
Portugal	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> I (Fração inalável), E (O valor aplica-se a partículas sem amianto e contendo menos de 1 % de sílica cristalina)
Slovakia	Local name	Síran (sulfát) bárnatý
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (respirabilná frakcia) 4 mg/m <sup>3</sup> (inhalovateľná frakcia)
Spain	Local name	Sulfato de bario
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Spain	Notes	e
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> inhalable aerosol 4 mg/m <sup>3</sup> respirable aerosol

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<b>Iron oxide red (1309-37-1)</b>		
Austria	MAK (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (einatembare Fraktion) 5 mg/m <sup>3</sup> (aveolengängige Fraktion)
Austria	MAK Short time value (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (einatembare Fraktion) max. 2x60 min./Schicht 10 mg/m <sup>3</sup> (aveolengängige Fraktion) max. 2x60 min./Schicht
Belgium	Limit value (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	2 ppm
Belgium	Remark (BE)	(trioxyde de; fumées, en Fe)
Denmark	Local name	Jernoxid
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Denmark	Anmærkninger (DK)	(Jernoxid, total dust)
Denmark	Regulatory reference	BEK nr 655 af 31/05/2018
Finland	Local name	Rautaoksidi, huurut
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Finland	Huomautus (FI)	(Fe)
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystieteiden ministeriö)
France	Local name	Trioxyde de difer
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (oxyde rouge synthétique) 5 mg/m <sup>3</sup> (trioxide de di-,fumées)
France	Note (FR)	Valeurs recommandées/admises
France	Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany	TRGS 910 Acceptable concentration notes	
Hungary	Local name	VAS(III)-OXID (Fe-ra számítva)
Hungary	AK-érték	6 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	(respirábilis por)
Hungary	Regulatory reference	25/2000. (IX. 30.) EüM-SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Iron oxide, fume as Fe) 10 mg/m <sup>3</sup> (Rouge total inhalable dust) 4 mg/m <sup>3</sup> (Rouge total respirable dust)
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Iron oxide, fume as Fe)
Lithuania	IPRV (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Lithuania	Remark (LT)	(Piūrėk IX skyriaus 3 pastabà.)
Poland	Local name	Tlenki żelaza w przeliczeniu na Fe dymy
Poland	NDS (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Poland	Remark (PL)	(dymy)



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Iron oxide red (1309-37-1)		
Poland	Regulatory reference	Dz. U. 2018 poz. 1286
Portugal	Local name	Óxido de ferro
Portugal	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> R (Fração respirável)
Slovakia	Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia	Local name	Oxidy železa, dymy (ako Fe)
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (respirabilná frakcia) 4 mg/m <sup>3</sup> (inhalovateľná frakcia)
Slovakia	Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Spain	Local name	Óxido de hierro (III)
Spain	VLA-ED (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Spain	Notes	(Óxido de hierro(III) (polvo y humos), como Fe)
Spain	Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2018. INSHT
Sweden	Local name	Järnoxid (som Fe)
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Sweden	Anmärkning (SE)	(Järnoxid, respirabelt damm)
Sweden	Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Rouge, inhalable fraction) 4 mg/m <sup>3</sup> (Rouge, respirable fraction) 5 mg/m <sup>3</sup> (fume, as Fe)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (fume, as Fe)
Norway	Local name	Jern(III)oksid (beregnet som Fe)
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Norway	Merknader (NO)	(Jern(III)oksid, beregnet som Fe)
Norway	Regulatory reference	FOR-2018-08-21-1255
Switzerland	VME (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	Remark	(alveolengängiger Staub)

## Aluminum oxide (1344-28-1)

Austria	MAK (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (gemessen als einatembarer Aerosolanteil) 5 mg/m <sup>3</sup> (alveolengängiger Anteil)
Austria	MAK Short time value (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (gemessen als einatembarer Aerosolanteil) max. 2x60 min./Schicht 10 mg/m <sup>3</sup> (alveolengängiger Anteil) max. 2x60 min./Schicht
Belgium	Limit value (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Belgium	Remark (BE)	(oxyde d') (en Al)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (total) 2 mg/m <sup>3</sup> (respirabel)

Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)

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according to Regulation (EU) 2015/830

Aluminum oxide (1344-28-1)		
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total) 4 mg/m <sup>3</sup> (respirabel)
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
France	Note (FR)	(respirable aerosol)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Remark	(gemessen als alveolengängiger Staubanteil)
Germany	TRGS 910 Acceptable concentration notes	
Hungary	AK-érték	6 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	(respirable aerosol)
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total inhalable dust) 4 mg/m <sup>3</sup> (respirable dust)
Lithuania	IPRV (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Lithuania	Remark (LT)	(alveolinė frakcija. Piūrėk IX skyriaus 3 pastabà.)
Poland	NDS (mg/m <sup>3</sup> )	2.5 mg/m <sup>3</sup> (dymy, pyl calkowity) 1.2 mg/m <sup>3</sup> (dymy, pyl respirabilny)
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (respirabilná frakcia) 4 mg/m <sup>3</sup> (inhalovateľná frakcia)
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (inhalable aerosol) 2 mg/m <sup>3</sup> (respirable aerosol)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable aerosol) 4 mg/m <sup>3</sup> (respirable aerosol)
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Norway	Merknader (NO)	1)
Switzerland	VME (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	Remark	(respirable aerosol)

manganese dioxide (1313-13-9)		
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Germany	TRGS 910 Acceptable concentration notes	

Silicon dioxide (cristobalite) (14808-60-7)		
EU	Local name	Silica crystalline (Quartz)
EU	Notes	SCOEL Recommendations (2003)
EU	Regulatory reference	SCOEL Recommendations
Austria	MAK (mg/m <sup>3</sup> )	0.15 mg/m <sup>3</sup>
Austria	Remark (AT)	(alveolengängige Fraktion; Jahres-Miw)
Belgium	Limit value (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Belgium	Remark (BE)	(poussières alvéolaires)



**Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)**

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according to Regulation (EU) 2015/830

Silicon dioxide (cristobalite) (14808-60-7)		
Denmark	Local name	Kvarts
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup> (inhalable aerosol) 0.1 mg/m <sup>3</sup> (K, respirable aerosol)
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	0.6 mg/m <sup>3</sup> (inhalable aerosol) 0.2 mg/m <sup>3</sup> (K, respirable aerosol)
Denmark	Anmærkninger (DK)	K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Denmark	Regulatory reference	BEK nr 655 af 31/05/2018
Finland	Local name	Kvartsi
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Finland	Huomautus (FI)	(alveolijae)
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystiete)
France	Local name	Quartz (Silices cristallines)
France	VME (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
France	Note (FR)	(poussières alvéolaires de quartz)
France	Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016)
Germany	TRGS 910 Acceptable concentration notes	
Hungary	Local name	Kvarc
Hungary	AK-érték	0.15 mg/m <sup>3</sup>
Hungary	MK-érték	0.15 mg/m <sup>3</sup> respirabilis frakció
Hungary	Megjegyzések (HU)	(respirable aerosol)
Hungary	Regulatory reference	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Lithuania	Remark (LT)	(Piūrėk IX skyriaus 3 pastabà)
Netherlands	Local name	Silicium(di)oxide – kwarts
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	0.075 mg/m <sup>3</sup>
Netherlands	Remark (MAC)	(Voor respirabel stof) (kankerverwekkende stoff)
Netherlands	Regulatory reference	Arbeidsomstandighedenregeling 2018
Poland	Local name	Krzemionka krystaliczna – kwarc
Poland	NDS (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (krzemionke powyzej 50%; pyl calkowity) 0.3 mg/m <sup>3</sup> (krzemionke powyzej 50%; pyl respirabilny) 2 mg/m <sup>3</sup> (krzemionke od 2% do 50%; pyl calkowity) 0.3 mg/m <sup>3</sup> (krzemionke od 2% do 50%; pyl respirabilny)
Poland	Remark (PL)	Frakcja respirabilna – frakcja aerozolu wnikajàca do dróg oddechowych, która stwarza zagrożenie dla zdrowia po zdeponowaniu w obszarze wymiany gazowej.
Poland	Regulatory reference	Dz. U. 2018 poz. 1286

**Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)**

## Safety Data Sheet

according to Regulation (EU) 2015/830

<b>Silicon dioxide (cristobalite) (14808-60-7)</b>		
Portugal	Local name	Silica, cristalina α - Quartzo
Portugal	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> R (Fração respirável)
Slovakia	Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia	Local name	oxid kremičitý, kryštalický
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ľudí, R)
Slovakia	Regulatory reference	Nariadenie vlády č. 83/2015 Z. z.
Slovenia	Local name	kremen
Slovenia	OEL TWA (mg/m <sup>3</sup> )	0.15 mg/m <sup>3</sup>
Slovenia	Regulatory reference	Uradni list RS, št. 38/2015 z dne 4.6.2015
Spain	Local name	Sílice Cristalina (Cuarzo)
Spain	VLA-ED (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Spain	Notes	(respirable aerosol)
Spain	Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2018. INSHT
Sweden	Local name	Kvarts
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Sweden	Anmärkning (SE)	(respirabelt damm; M, 1)
Sweden	Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
Norway	Local name	α-kvarts
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup> Totalstøv 0.1 mg/m <sup>3</sup> Respirabelt støv
Norway	Merknader (NO)	K (Kjemikalier som skal betraktes som kreftfremkallende); 7) Støv som inneholder α-kvarts, kristobalitt og/eller tridymitt vurderes ut fra summasjonsformel. Samtidig må verdiene for sjenerende støv overholdes
Norway	Regulatory reference	FOR-2018-08-21-1255
Switzerland	VME (mg/m <sup>3</sup> )	0.15 mg/m <sup>3</sup>
Switzerland	Remark	(respirable aerosol)

<b>sebacic acid (111-20-6)</b>		
Germany	TRGS 910 Acceptable concentration notes	
Lithuania	IPRV (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>

<b>Carbon black (1333-86-4)</b>		
Belgium	Limit value (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Denmark	Local name	Carbon black
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>

Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)

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according to Regulation (EU) 2015/830

Carbon black (1333-86-4)		
Denmark	Anmærkninger (DK)	K
Denmark	Regulatory reference	BEK nr 655 af 31/05/2018
Finland	Local name	Nokimusta
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min)	7 mg/m <sup>3</sup>
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystieteiden ministeriö)
France	Local name	Noir de carbone
France	VME (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
France	Note (FR)	Valeurs recommandées/admises
France	Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany	TRGS 910 Acceptable concentration notes	
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Poland	Local name	Sadza techniczna
Poland	NDS (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> frakcja wdychalna
Poland	Remark (PL)	Frakcja wdychalna – frakcja aerozolu wnika przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia.
Poland	Regulatory reference	Dz. U. 2018 poz. 1286
Portugal	Local name	Carbono, preto (Negro de fumo)
Portugal	OEL TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> I (Fracção inalável)
Slovakia	Regulatory reference	Norma Portuguesa NP 1796:2014
Spain	Local name	Negro de humo
Spain	VLA-ED (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Spain	Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2018. INSHT
Sweden	Local name	Kimrök
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Sweden	Anmärkning (SE)	2 (Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagnings av totaldamm och respirabelt damm, Metod nr 1010, Arbetsmiljöverket, numera Arbetsmiljöverket. Filterdiametern är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod)
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Norway	Local name	Carbon Black (lampesot)

Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)

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Carbon black (1333-86-4)		
Norway	Grænseverdier (AN) (mg/m <sup>3</sup> )	3.5 mg/m <sup>3</sup>
Norway	Regulatory reference	FOR-2018-08-21-1255

adipic acid (124-04-9)		
Denmark	Local name	Adipinsyre
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Finland	Local name	Adipiinihappo
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Germany	TRGS 910 Acceptable concentration notes	
Latvia	Local name	Adipīnskābe (1,4-butāndikarbonskābe)
Latvia	OEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>
Poland	Local name	Kwas adypinowy pyły
Poland	NDS (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Poland	Remark (PL)	pyły
Portugal	Local name	Ácido adípico
Portugal	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Spain	Local name	Ácido adípico
Spain	VLA-ED (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

Polyethylene Glycol (25322-68-3)		
Austria	MAK (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup> (einatembare Fraktion)
Austria	MAK Short time value (mg/m <sup>3</sup> )	4000 mg/m <sup>3</sup> max. 4x15 min./Schicht (einatembare Fraktion)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
Denmark	Anmærkninger (DK)	(Polyethylenglycol (PEG) med middelmolvægt på 200-600)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Germany	TRGS 900 Limitation of exposure peaks (mg/m <sup>3</sup> )	8000 mg/m <sup>3</sup>
Germany	TRGS 900 Remark	(einatembare Fraktion)
Germany	TRGS 910 Acceptable concentration notes	
Slovakia	Local name	Polyetylén glykol
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Slovakia	Upozornenie (SK)	krátkodobý: kategória II.
Slovakia	Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Switzerland	MAK (ppm)	1000 ppm

Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)

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Polyethylene Glycol (25322-68-3)		
Switzerland	Remark	(mittlere Molmasse 200–600)

potassium sulfate (7778-80-5)		
Germany	TRGS 910 Acceptable concentration notes	
Lithuania	IPRV (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

calcium sulfate (7778-18-9)		
Belgium	Remark (BE)	(sulfate de)
Germany	TRGS 900 Local name	Calciumsulfat
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup> A (mg/m <sup>3</sup> )
Germany	TRGS 900 Remark	DFG
Germany	TRGS 910 Acceptable concentration notes	
Hungary	Local name	KALCIUM-SZULFÁT
Hungary	AK-érték	6 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	(respirable aerosol)
Latvia	Local name	Kalcijasulfāts (hidrogenēts:ģipša putekļi)
Latvia	OEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>
Portugal	Local name	Sulfato de cálcio
Portugal	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> I (Fração inalável)
Slovakia	Local name	Síran vápenatý (anhydrid)
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (respirabilná frakcia) 4 mg/m <sup>3</sup> (inhalovateľná frakcia)
Slovenia	Local name	kalcijev sulfat
Slovenia	OEL TWA (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Spain	Local name	Sulfato de calcio anhidro
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Spain	Notes	e (Este valor es para la materia particulada que no contenga amianto y menos de un 1% de sílice cristalina).
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (respirable dust) 10 mg/m <sup>3</sup> (inhalable dust)
Switzerland	VME (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	Remark	(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:

Wear dust impervious gloves. EN374

### Eye protection:

EN166. In case of dust production: protective goggles

### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Use air-purifying respirator equipped with particulate filtering cartridges. EN 12083

## 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	: Variable.
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	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Keep away from incompatible materials. Avoid creating or spreading dust.



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### 10.5. Incompatible materials

Strong bases. Strong oxidizers.

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### barium sulfate (7727-43-7)

LD50 oral rat	307 g/kg
LD50 dermal rat	> 2000 mg/kg

#### phenyl salicylate (118-55-8)

LD50 oral rat	3000 mg/kg
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#### butyl 4-hydroxybenzoate (94-26-8)

LD50 oral rat	13200 mg/kg
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#### 2',4'-dimethylacetoacetanilide (97-36-9)

LD50 oral rat	1995 mg/kg
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#### salicylamide (65-45-2)

LD50 oral rat	1400 mg/kg
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#### 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

#### Aluminum oxide (1344-28-1)

LD50 oral rat	> 15900 mg/kg
LC50 inhalation rat (mg/l)	7.6 mg/l/4h

#### sebacic acid (111-20-6)

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

#### succinimide (123-56-8)

LD50 oral rat	14000 mg/kg 24 h
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<b>Carbon black (1333-86-4)</b>	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m <sup>3</sup> 4 h

<b>adipic acid (124-04-9)</b>	
LD50 oral rat	5560 mg/kg
LD50 dermal rabbit	7940 ml/kg
LC50 inhalation rat (mg/l)	> 7.7 mg/l/4h

<b>Polyethylene Glycol (25322-68-3)</b>	
LD50 oral rat	47000 mg/kg
LD50 dermal rat	> 20000 mg/kg

<b>potassium sulfate (7778-80-5)</b>	
LD50 oral rat	> 2000 mg/kg OECD 425
LD50 dermal rat	> 2000 mg/kg OECD Test Guideline 402
LC50 inhalation rat (mg/l)	> 1.2 mg/l/4h OECD Guideline 433

<b>lithium sulphate (10377-48-7)</b>	
LD50 oral rat	613 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 2 mg/l/4h

<b>calcium sulfate (7778-18-9)</b>	
LD50 oral rat	> 1581 mg/kg
LC50 inhalation rat (mg/l)	> 3.26 mg/l/4h

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

: 95.14% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
 173.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
 173.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation : Not classified  
 Serious eye damage/irritation : Not classified  
 Respiratory or skin sensitisation : Not classified  
 Germ cell mutagenicity : Not classified  
 Carcinogenicity : Not classified.

<b>Iron oxide red (1309-37-1)</b>	
IARC group	3 - Not classifiable

<b>Silicon dioxide (cristobalite) (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans

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<b>Carbon black (1333-86-4)</b>	
IARC group	2B - Possibly carcinogenic to humans, Inhalation of dust

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

<b>lithium sulphate (10377-48-7)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	15 mg/kg bodyweight

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

Reproductive toxicity : Not classified  
 STOT-single exposure : Not classified

<b>potassium sulfate (7778-80-5)</b>	
NOAEL (oral, rat)	> 1500 mg/kg bodyweight

STOT-repeated exposure : Not classified

<b>adipic acid (124-04-9)</b>	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight/day

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

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute aquatic toxicity : Not classified  
 Chronic aquatic toxicity : Not classified.

<b>barium sulfate (7727-43-7)</b>	
LC50 fish 1	> 3.5 mg/l 96 h
EC50 Daphnia 1	14500 µg/l 48 h

<b>2',4'-dimethylacetoacetanilide (97-36-9)</b>	
LC50 fish 1	250 (250 - 350) mg/l

<b>salicylamide (65-45-2)</b>	
LC50 fish 1	101 mg/l 96 h
EC50 Daphnia 1	75 mg/l 24 h

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### Iron oxide red (1309-37-1)

EC50 Daphnia 1	> 100 mg/l
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### Aluminum oxide (1344-28-1)

EC50 Daphnia 1	1470 mg/l
NOEC (acute)	50 mg/l

### manganese dioxide (1313-13-9)

LC50 fish 1	> 100 % v/v saturated solution, 96 h
EC50 Daphnia 1	> 100 % v/v saturated solution, 48 h

### sebacic acid (111-20-6)

LC50 fish 1	> 100 mg/l Danio rerio 96 h; no mortality was observed
EC50 Daphnia 1	> 100 mg/l 48 h

### succinimide (123-56-8)

EC50 Daphnia 1	515 g/l 24 h
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### adipic acid (124-04-9)

LC50 fish 1	>= 1000 mg/l 96 h
EC50 Daphnia 1	46 mg/l 48 h

### Polyethylene Glycol (25322-68-3)

LC50 fish 1	> 100 mg/l
LC50 other aquatic organisms 1	1000 mg/l

### 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

### lithium sulphate (10377-48-7)

LC50 fish 1	30.3 mg/l read-across, 96 h
EC50 Daphnia 1	33.2 mg/l read across, 48 h
LOEC (chronic)	24.35 mg/l read-across lithium hydroxide monohydrate
NOEC (chronic)	17.35 mg/l read-across lithium hydroxide monohydrate

### calcium sulfate (7778-18-9)

LC50 fish 1	> 56000 mg/l 96 h
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### 12.2. Persistence and degradability

#### phenyl salicylate (118-55-8)

Persistence and degradability	Moderately biodegradable.
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#### 2',4'-dimethylacetoacetanilide (97-36-9)

Biodegradation	25 % 28 d
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#### salicylamide (65-45-2)

Biodegradation	99 % 28 d
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#### sebacic acid (111-20-6)

Persistence and degradability	Readily biodegradable.
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#### succinimide (123-56-8)

Persistence and degradability	Readily biodegradable.
-------------------------------	------------------------

#### Carbon black (1333-86-4)

Persistence and degradability	Not readily biodegradable.
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#### adipic acid (124-04-9)

Persistence and degradability	Readily biodegradable.
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Biodegradation	90 % 5 d
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### 12.3. Bioaccumulative potential

#### barium sulfate (7727-43-7)

BCF fish 1	68.4 L/kg
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#### phenyl salicylate (118-55-8)

Log Pow	3.82
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Bioaccumulative potential	Not established.
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#### 2',4'-dimethylacetoacetanilide (97-36-9)

Log Pow	1.4
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#### salicylamide (65-45-2)

Log Pow	1.31
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#### sebacic acid (111-20-6)

Log Pow	1.5
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#### succinimide (123-56-8)

Log Pow	-0.9
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<b>adipic acid (124-04-9)</b>	
BCF fish 1	3.162
Log Pow	0.093

<b>potassium sulfate (7778-80-5)</b>	
Bioaccumulative potential	This product is not bioaccumulating.

<b>lithium sulphate (10377-48-7)</b>	
Log Pow	-4.38

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

**Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)**

PBT: not yet assessed

vPvB: not yet assessed

### Component

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
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### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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.



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### 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 : 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

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.

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Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

VOC content : 0 %

### 15.1.2. National regulations

#### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

WGK remark : Classification based on the R-phrases 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

SZW-lijst van kankerverwekkende stoffen : Silicon dioxide (cristobalite) is listed

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

	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
	TWA: Time Weighted Average
	TSCA: Toxic Substances Control Act

**Tempilstik® 104 °F (40 °C), 131 °F (55 °C), 182 °F (83 °C), 200 °F (93 °C), 206 °F (97 °C), 213 °F (101 °C), 219 °F (104 °C), 225 °F (107 °C), 230 °F (110 °C), 239 °F (115 °C), 256 °F (124 °C), 263 °F (128 °C), 320 °F (160 °C), 325 °F (163 °C), 329 °F (165 °C), 374 °F (190 °C), 375 °F (191 °C), 383 °F (195 °C), 388 °F (198 °C), 392 °F (200 °C), 400 °F (204 °C), 413 °F (212 °C), 419 °F (215 °C), 550 °F (288 °C), 1400 °F (760 °C), 1450 °F (788 °C), 1500 °F (816 °C), 1550 °F (843 °C), 1600 °F (871 °C), 1650 °F (899 °C), 1700 °F (927 °C), 1800 °F (982 °C), 1900 °F (1038 °C), 1950 °F (1066 °C), 212 °F (100 °C), 257 °F (125 °C), 410 °F (210 °C), 525 °F (274 °C), 554 °F (290 °C)**

## Safety Data Sheet

according to Regulation (EU) 2015/830

Data sources	: ESIS (European chemical Substances Information System; accessed at: <a href="http://esis.jrc.ec.europa.eu/index.php?PGM=cla">http://esis.jrc.ec.europa.eu/index.php?PGM=cla</a> . European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <a href="http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database">http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database</a> . 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)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 1A	Carcinogenicity (inhalation) Category 1A
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

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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*