

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 06/04/2015

Revision date: 05/1/2016

Version: 3.0

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

1.1. Product identifier

Product form : Mixture
 Trade name : Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °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

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 Totleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402
DENMARK	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240
GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

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 Reykjavík	+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	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]

Skin Irrit. 2 H315

Eye Irrit. 2 H319

STOT SE 3 H335

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazardous ingredients :

salicylanilide; hymecromone; potassium molybdate; butyl 4-hydroxybenzoate; dilithium molybdate; benzil

Hazard statements (CLP) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements (CLP) :

P261 - Avoid breathing dust, fume
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of water
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to an authorised waste collection point

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

: 0.01% of the mixture consists of ingredient(s) of unknown acute oral toxicity
0.01% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0.01% 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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hymecromone	(CAS No) 90-33-5 (EC no) 201-986-7	0 – 95	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
salicylanilide	(CAS No) 87-17-2 (EC no) 201-727-8	0 – 90	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
dilithium molybdate	(CAS No) 13568-40-6 (EC no) 236-977-7	0 – 90	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
butyl 4-hydroxybenzoate	(CAS No) 94-26-8 (EC no) 202-318-7	0 – 90	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
benzil	(CAS No) 134-81-6 (EC no) 205-157-0	0 – 90	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
potassium molybdate	(CAS No) 13446-49-6 (EC no) 236-599-2	0 – 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
stearic acid, monoester with glycerol	(CAS No) 31566-31-1 (EC no) 250-705-4	0 – 10	Not classified
Iron oxide red	(CAS No) 1309-37-1 (EC no) 215-168-2	0 – 2	Aquatic Chronic 2, H411
Polyethylene Glycol	(CAS No) 25322-68-3 (EC no) 500-038-2	0 – 2	Not classified
lithium carbonate	(CAS No) 554-13-2 (EC no) 209-062-5	0 – 2	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
manganese dioxide	(CAS No) 1313-13-9 (EC no) 215-202-6 (EC index no) 025-001-00-3	< 0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332
Aluminum oxide	(CAS No) 1344-28-1 (EC no) 215-691-6	< 0.1	Not classified
Silicon dioxide (cristobalite)	(CAS No) 14808-60-7 (EC no) 238-878-4	< 0.1	Carc. 1A, H350i
Cobalt	(CAS No) 7440-48-4 (EC no) 231-158-0 (EC index no) 027-001-00-9	< 0.1	Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 4, H413

Full text of R- and 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.

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

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

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

Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

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

Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Sand. Water spray.
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. Mixture of hydrocarbons.

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	: Always approach spills or fires from upwind/uphill. Avoid creating or spreading dust.
------------------	-----------------------------------------------------------------------------------------

6.1.1. For non-emergency personnel

Protective equipment	: Chemical goggles or safety glasses. Dust impervious gloves.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Chemical goggles or safety glasses. Dust impervious gloves.
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	: Avoid generating dust. Contain and collect as any solid.
Methods for cleaning up	: Minimize 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

Precautions for safe handling	: Avoid breathing dust, fume. Use only outdoors or in a well-ventilated area.
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.

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

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

Iron oxide red (1309-37-1)		
Belgium	Remark (BE)	(trioxyde de; fumées, en Fe)
Denmark	Grænseværdie (kortvarig) (mg/m ³)	7 mg/m ³
Denmark	Anmærkninger (DK)	(Jernoxid, total dust)
Finland	Huomautus (FI)	(Fe)
Hungary	Megjegyzések (HU)	(respirábilis 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	Remark (LT)	(Piūrėk IX skyriaus 3 pastabà.)
Poland	Remark (PL)	(dymy)
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
Spain	Notes	(Óxido de hierro(III) (polvo y humos), como Fe)
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	Merknader (NO)	(Jern(III)oksid, beregnet som Fe)
Switzerland	Remark (CH)	(alveolengängiger Staub)
Polyethylene Glycol (25322-68-3)		
Austria	MAK (mg/m ³)	1000 mg/m ³ (einatembare Fraktion)
Austria	MAK Short time value (mg/m ³)	4000 mg/m ³ max. 4x15 min./Schicht (einatembare Fraktion)
Denmark	Grænseværdie (langvarig) (mg/m ³)	1000 mg/m ³
Denmark	Grænseværdie (kortvarig) (mg/m ³)	2000 mg/m ³
Denmark	Anmærkninger (DK)	(Polyethylenglycol (PEG) med middelmolvægt på 200-600)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1000 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	8000 mg/m ³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Slovakia	NPHV (priemerná) (mg/m ³)	1000 mg/m ³
Slovakia	Upozornenie (SK)	krátkodobý: kategória II.
Switzerland	VME (ppm)	1000 ppm
Switzerland	Remark (CH)	(mittlere Molmasse 200–600)
Aluminum oxide (1344-28-1)		
Austria	MAK (mg/m ³)	10 mg/m ³ (gemessen als einatembarer Aerosolanteil) 5 mg/m ³ (alveolengängiger Anteil)
Austria	MAK Short time value (mg/m ³)	20 mg/m ³ (gemessen als einatembarer Aerosolanteil) max. 2x60 min./Schicht 10 mg/m ³ (alveolengängiger Anteil) max. 2x60 min./Schicht
Belgium	Limit value (mg/m ³)	10 mg/m ³
Belgium	Remark (BE)	(oxyde d') (en Al)
Denmark	Grænseværdie (langvarig) (mg/m ³)	5 mg/m ³ (total) 2 mg/m ³ (respirabel)

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

Aluminum oxide (1344-28-1)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	10 mg/m ³ (total) 4 mg/m ³ (respirabel)
France	VME (mg/m ³)	10 mg/m ³
France	Note (FR)	(respirable aerosol)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	3 mg/m ³
Germany	Remark (TRGS 900)	(gemessen als alveolengängiger Staubanteil)
Hungary	AK-érték	6 mg/m ³
Hungary	Megjegyzések (HU)	(respirable aerosol)
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ (total inhalable dust) 4 mg/m ³ (respirable dust)
Lithuania	IPRV (mg/m ³)	2 mg/m ³
Lithuania	Remark (LT)	(alveolinė frakcija. Piūrėk IX skyriaus 3 pastabà.)
Poland	NDS (mg/m ³)	2.5 mg/m ³ (dymy, pyl całkowity) 1.2 mg/m ³ (dymy, pyl respirabilny)
Slovakia	NPHV (priemerná) (mg/m ³)	1.5 mg/m ³ (respirabilná frakcia) 4 mg/m ³ (inhalovateľná frakcia)
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³ (inhalable aerosol) 2 mg/m ³ (respirable aerosol)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable aerosol) 4 mg/m ³ (respirable aerosol)
Norway	Grenseverdier (AN) (mg/m ³)	10 mg/m ³
Norway	Merknader (NO)	1)
Switzerland	VME (mg/m ³)	3 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)
manganese dioxide (1313-13-9)		
Finland	HTP-arvo (8h) (mg/m ³)	0.2 mg/m ³
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 całkowity) 0.3 mg/m ³ (krzemionke powyzej 50%; pyl respirabilny) 2 mg/m ³ (krzemionke od 2% do 50%; pyl całkowity) 0.3 mg/m ³ (krzemionke od 2% do 50%; pyl respirabilny)
Slovakia	NPHV (priemerná) (mg/m ³)	0.1 mg/m ³

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

Silicon dioxide (cristobalite) (14808-60-7)		
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ľudí, 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)
Cobalt (7440-48-4)		
Belgium	Remark (BE)	(fumées et poussières) (en Co)
Finland	Huomautus (FI)	(Co)
Lithuania	IPRV (mg/m ³)	0.05 mg/m ³
Lithuania	Remark (LT)	K M J
Slovakia	NPHV (priemerná) (mg/m ³)	0.05 mg/m ³ poznámka S
Slovakia	NPHV (priemerná) (ppm)	30 µg/l (Kobalt)
Spain	VLA-ED (mg/m ³)	0.02 mg/m ³ (Cobalto elemental y compuestos inorgánicos, como Co)
Spain	VLA-ED (ppm)	15 µg/l F "(Cobalto en orina; Final de la semana laboral 1)" 1 µg/l F, S "(Cobalto en sangre; Final de la semana laboral 1)"
Sweden	nivågränsvärde (NVG) (mg/m ³)	0.02 mg/m ³
Sweden	Anmärkning (SE)	(C,H,S,2)
United Kingdom	WEL TWA (mg/m ³)	0.1 mg/m ³
Norway	Grenseverdier (AN) (mg/m ³)	0.02 mg/m ³ RA // Kobolt (røyk) og uorg. Kobolt-forb. (beregnet som Co, unntatt CO(II))
Switzerland	VME (ppm)	30 µg/l Cobalt, Urin, b

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.
Hand protection	: Wear dust impervious gloves. EN 374.
Eye protection	: Chemical goggles or safety glasses. EN166.
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 (butyl acetate=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

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

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.

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 : Not classified

salicylanilide (87-17-2)	
LD50 oral rat	2400 mg/kg
ATE CLP (oral)	2400.000 mg/kg bodyweight
Iron oxide red (1309-37-1)	
LD50 oral rat	> 10000 mg/kg
hymecromone (90-33-5)	
LD50 oral rat	3850 mg/kg
ATE CLP (oral)	3850.000 mg/kg bodyweight
Polyethylene Glycol (25322-68-3)	
LD50 oral rat	47000 mg/kg
LD50 dermal rat	> 20000 mg/kg
ATE CLP (oral)	47000.000 mg/kg bodyweight
lithium carbonate (554-13-2)	
LD50 oral rat	525 mg/kg
LD50 dermal rabbit	> 3000 mg/kg
LC50 inhalation rat (mg/l)	> 2 mg/l/4h
ATE CLP (oral)	525.000 mg/kg bodyweight
Aluminum oxide (1344-28-1)	
LD50 oral rat	> 15900 mg/kg
LC50 inhalation rat (mg/l)	7.6 mg/l/4h
ATE CLP (vapours)	7.600 mg/l/4h
ATE CLP (dust,mist)	7.600 mg/l/4h

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

manganese dioxide (1313-13-9)	
ATE CLP (oral)	500.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
butyl 4-hydroxybenzoate (94-26-8)	
LD50 oral rat	13200 mg/kg
ATE CLP (oral)	13200.000 mg/kg bodyweight
Cobalt (7440-48-4)	
LD50 oral rat	7150 mg/kg OECD Guideline 401
LD50 dermal rat	> 2000 mg/kg OECD Guideline 402 as tricobalt tetraoxide
ATE CLP (oral)	7150.000 mg/kg bodyweight
benzil (134-81-6)	
LD50 oral rat	> 3000 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Iron oxide red (1309-37-1)	
EC50 Daphnia 1	> 100 mg/l
Polyethylene Glycol (25322-68-3)	
LC50 fish 1	> 100 mg/l
LC50 other aquatic organisms 1	1000 mg/l
lithium carbonate (554-13-2)	
LC50 fish 1	30.3 mg/l 96 h
EC50 Daphnia 1	33.2 mg/l 48 h
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
Cobalt (7440-48-4)	
LC50 fish 1	275 mg/l
LOEC (chronic)	53.6 mg/l as cobalt dichloride
NOEC (chronic)	31.1 mg/l 28 d as cobalt dichloride

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Cobalt (7440-48-4)	
Bioconcentration factor (BCF REACH)	< 73
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

No additional information available

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

12.5. Results of PBT and vPvB assessment

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

PBT: not yet assessed

vPvB: not yet assessed

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

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

H code : H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation

SECTION 14: Transport information

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

14.1. UN number

Not considered a dangerous good for transport regulations

14.2. UN proper shipping name

Proper Shipping Name (ADR) :

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Inland waterway transport

Carriage prohibited (ADN) : No

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 %

15.1.2. National regulations

Germany

Water hazard class (WGK) : 1 - low hazard to waters

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

WGK remark

: Classification based on the R-phrases in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

according to Regulation (EU) 2015/830

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) Registered Substances list. Accessed at <http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

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.

TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Other information

: None.

Full text of R-, H- and EUH-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
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Carc. 1A	Carcinogenicity (inhalation) Category 1A
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H350i	May cause cancer by inhalation

Tempilstik® 266 °F (130 °C), 269 °F (132 °C), 344 °F (173 °C), 356 °F (180 °C), 363 °F (184 °C), 750 °F (399 °C), 1300 °F (704 °C), 140 °F (60 °C), 194 °F (90 °C), 752 °F (400 °C), 1292 °F (700 °C)

Safety Data Sheet

according to Regulation (EU) 2015/830

H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
R20/22	Harmful by inhalation and if swallowed
R22	Harmful if swallowed
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R53	May cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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

Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H335	Calculation method

LA-CO EU CLP SDS

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