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

1.1. Product identifier

Product form : Mixture

Trade name : TISFRC743C - TEMPILINK STEAM PNK/BRN 743C

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 : Ink.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LA-CO Industries Europe S.A.S.
Parc Industriel de la Plaine de
l'Ain - Allée des Combes.
01150.BLYES.France.
Phone: +33 (0)4 74 46 23 23
Fax: +33 (0)4 74 46 23 29
E-mail: info@eu.laco.com
Web: http://www.markal.com

1.4. Emergency telephone number

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

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 220115 Minsk	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/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
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	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND	Centre Suisse d'Information Toxicologique	Freiestrasse 16 Postfach CH-8028 Zurich	+41 44 251 51 51 (International) 145 (National)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 3 H336

Full text of H-phrases: 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) :



GHS02 GHS07

Signal word (CLP) : Danger

Hazardous ingredients : isopropyl acetate, Isopropanol

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P261 - Avoid breathing mist, vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
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
P370+P378 - In case of fire: Use carbon dioxide (CO2), Dry powder., foam, Water fog to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to an authorised waste collection point

EUH phrases : EUH208 - Contains cobalt bis(2-ethylhexanoate)(136-52-7). May produce an allergic reaction

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]
isopropyl acetate	(CAS No) 108-21-4 (EC no) 203-561-1 (EC index no) 607-024-00-6	25 – 40	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Sulfur	(CAS No) 7704-34-9 (EC no) 231-722-6 (EC index no) 016-094-00-1	10 – 20	Skin Irrit. 2, H315
copper carbonate	(CAS No) 12069-69-1 (EC no) 235-113-6	10 – 15	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400
zinc sulphide	(CAS No) 1314-98-3 (EC no) 215-251-3	5 – 10	Not classified
barium thiosulfate	(CAS No) 35112-53-9 (EC no) 252-375-7	5 – 10	Acute Tox. 4 (Oral), H302
Isopropanol	(CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0	5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Polyethylene Glycol Octylphenyl Ether	(CAS No) 9036-19-5 (EC no) *618-541-1	1 – 2	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
triethylamine	(CAS No) 121-44-8 (EC no) 204-469-4 (EC index no) 612-004-00-5	0.1 – 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 STOT SE 3, H335
Colloidal Silicon dioxide	(CAS No) 112945-52-5 (EC no) 231-545-4	0.1 – 1	Not classified
benzenesulfonic acid	(CAS No) 90218-35-2 (EC no) 290-709-3	< 0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Polyethylene Glycol	(CAS No) 25322-68-3 (EC no) 500-038-2	< 0.1	Not classified
Kaolin	(CAS No) 1332-58-7 (EC no) 310-194-1	< 0.1	Not classified
Distillates (petroleum), hydrotreated light	(CAS No) 64742-47-8 (EC no) 265-149-8 (EC index no) 649-422-00-2	< 0.1	Asp. Tox. 1, H304
Stoddard solvent	(CAS No) 8052-41-3 (EC no) 232-489-3 (EC index no) 649-345-00-4	< 0.1	Flam. Liq. 3, H226 Muta. 1B, H340 Carc. 1B, H350 STOT RE 1, H372 Asp. Tox. 1, H304

Name	Product identifier	Specific concentration limits
triethylamine	(CAS No) 121-44-8 (EC no) 204-469-4 (EC index no) 612-004-00-5	(C >= 1) STOT SE 3, H335

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. 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 : 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 after inhalation : May cause drowsiness or dizziness.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

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

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. Cool adjacent structures and containers with water spray to protect and prevent ignition.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal.

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

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Avoid breathing mist, vapours. Use only outdoors or in a well-ventilated area.

Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/… equipment.
Storage conditions	:	Keep in fireproof place. Keep container tightly closed.
Incompatible products	:	Alkali. Strong oxidizers.
Incompatible materials	:	Heat sources.
Heat and ignition sources	:	Keep away from heat, sparks and flame.
Prohibitions on mixed storage	:	Incompatible materials.
Storage area	:	Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Ink.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

triethylamine (121-44-8)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	8.2 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	2 ppm
Finland	Huomautus (FI)	iho
France	Note (FR)	Peau
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	8.4 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	2 ppm
Slovakia	NPHV (priemerná) (mg/m³)	8.4 mg/m³
Slovakia	NPHV (priemerná) (ppm)	2 ppm
Slovakia	Upozornenie (SK)	(K)

Kaolin (1332-58-7)		
Belgium	Remark (BE)	(fraction alvéolaire)
Denmark	Grænseværdie (kortvarig) (mg/m³)	4 mg/m³
Denmark	Anmærkninger (DK)	respirable aerosol
Finland	Huomautus (FI)	(alveolijae)
France	VME (mg/m³)	10 mg/m³
France	Note (FR)	respirable aerosol
Spain	VLA-ED (mg/m³)	2 mg/m³
Spain	Notes	d,e
United Kingdom	Remark (WEL)	respirable aerosol
Switzerland	Remark (CH)	(respirable aerosol)

zinc sulphide (1314-98-3)		
Lithuania	IPRV (mg/m³)	5 mg/m³

Colloidal Silicon dioxide (112945-52-5)		
Austria	MAK (mg/m³)	4 mg/m³
Austria	Remark (AT)	(einatembare Fraktion)
Finland	HTP-arvo (8h) (mg/m³)	5 mg/m³
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	4 mg/m³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Ireland	OEL (8 hours ref) (mg/m³)	2.4 mg/m³ 6 mg/m³ (total inhalable dust)
Spain	VLA-ED (mg/m³)	10 mg/m³
Spain	Notes	(respirable aerosol)
United Kingdom	WEL TWA (mg/m³)	6 mg/m³ (inhalable aerosol) 2.4 mg/m³ (respirable aerosol)
Switzerland	VME (mg/m³)	4 mg/m³
Switzerland	Remark (CH)	(einatembarer Staub)

isopropyl acetate (108-21-4)		
Austria	Remark (AT)	(gemessen als Momentanwert)
Czech Republic	Expoziční limity (PEL) (mg/m³)	800 mg/m³
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	1000 mg/m³

isopropyl acetate (108-21-4)		
Czech Republic	Remark (CZ)	I
Denmark	Grænseværdie (kortvarig) (mg/m³)	1250 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	300 ppm
Spain	VLA-ED (mg/m³)	425 mg/m³
Spain	VLA-ED (ppm)	100 ppm
Spain	VLA-EC (mg/m³)	850 mg/m³
Spain	VLA-EC (ppm)	200 ppm
Stoddard solvent (8052-41-3)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	290 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
Denmark	Anmærkninger (DK)	(Terpentin, mineralsk, max. 20 pct. aromater; 2)
Distillates (petroleum), hydrotreated light (64742-47-8)		
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	600 mg/m³
Polyethylene Glycol (25322-68-3)		
Austria	MAK (mg/m³)	1000 mg/m³ (einatembare Fraktion)
Austria	MAK Short time value (mg/m³)	4000 mg/m³ max. 4x15 min./Schicht (einatembare Fraktion)
Denmark	Grænseværdie (langvarig) (mg/m³)	1000 mg/m³
Denmark	Grænseværdie (kortvarig) (mg/m³)	2000 mg/m³
Denmark	Anmærkninger (DK)	(Polyethylenglycol (PEG) med middelmolvægt på 200-600)
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	1000 mg/m³
Germany	TRGS 900 Limitation of exposure peaks (mg/m³)	8000 mg/m³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Slovakia	NPHV (priemerná) (mg/m³)	1000 mg/m³
Slovakia	Upozornenie (SK)	krátkodobý: kategória II.
Switzerland	VME (ppm)	1000 ppm
Switzerland	Remark (CH)	(mittlere Molmasse 200–600)
copper carbonate (12069-69-1)		
Isopropanol (67-63-0)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	980 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	400 ppm
Germany	TRGS 903 (BGW)	50 mg/l Aceton (Blut; Expositionsende bzw. Schichtende)
Netherlands	Grenswaarde TGG 8H (mg/m³)	650 mg/m³
Netherlands	Grenswaarde TGG 8H (ppm)	250 ppm
Slovakia	NPHV (priemerná) (mg/m³)	500 mg/m³
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Spain	VLA-ED (mg/m³)	500 mg/m³ VLB, s
Spain	VLA-ED (ppm)	200 ppm VLB, s 40 ppm F, I "(Acetona en orina; Final de la semana, laboral 1)"
Spain	VLA-EC (mg/m³)	1000 mg/m³ VLB, s
Spain	VLA-EC (ppm)	400 ppm VLB, s

8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Provide local exhaust ventilation of closed transfer systems to minimize exposures.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves. Use rubber gloves. EN374.

Eye protection : Chemical goggles or safety glasses. EN166.

Skin and body protection : Long sleeved protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Use an approved respirator equipped with oil/mist cartridges. EN 12083.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Opaque liquid.
Colour	:	pink. brown.
Odour	:	mild.
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	:	83 °C
Flash point	:	2 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Highly flammable liquid and vapour
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

VOC content	:	42.9 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

Alkali. Strong oxidizers.

10.6. Hazardous decomposition products

May release flammable gases. Thermal decomposition generates : metallic oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Not classified.

triethylamine (121-44-8)	
LD50 oral rat	730 mg/kg
ATE CLP (oral)	730.000 mg/kg bodyweight
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h

benzenesulfonic acid (90218-35-2)	
LD50 oral rat	1300 mg/kg
ATE CLP (oral)	1300.000 mg/kg bodyweight

Polyethylene Glycol Octylphenyl Ether (9036-19-5)	
LD50 oral rat	1900 (1900 - 5000) mg/kg
LD50 dermal rabbit	> 3000 mg/kg
ATE CLP (oral)	1900.000 mg/kg bodyweight

zinc sulphide (1314-98-3)	
LD50 oral rat	> 15000 mg/kg
LC50 inhalation rat (mg/l)	> 5410 mg/m³ read-across Zinc

Colloidal Silicon dioxide (112945-52-5)	
LD50 oral rat	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 0.139 mg/l/4h

isopropyl acetate (108-21-4)	
LD50 oral rat	6750 (6160 - 7380) mg/kg
LD50 dermal rat	> 20 ml/kg
LC50 inhalation rat (mg/l)	50600 mg/m³ 8 h
ATE CLP (oral)	6750.000 mg/kg bodyweight

Stoddard solvent (8052-41-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 10 mg/l/4h

Sulfur (7704-34-9)	
LD50 oral rat	> 2000 mg/kg bw/day
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 5.43 g/m³

Distillates (petroleum), hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5.28 mg/l/4h

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

barium thiosulfate (35112-53-9)	
ATE CLP (oral)	500.000 mg/kg bodyweight

copper carbonate (12069-69-1)	
LD50 oral rat	1434 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	1434.000 mg/kg bodyweight

Isopropanol (67-63-0)	
LD50 oral rat	5840 mg/kg
LD50 dermal rabbit	16.4 ml/kg
LC50 inhalation rat (ppm)	> 10000 ppm/4h
ATE CLP (oral)	5840.000 mg/kg bodyweight

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 drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) : Not classified

copper carbonate (12069-69-1)	
NOAEL (subchronic, oral, animal/male, 90 days)	1000 mg/kg bodyweight ppm; mouse
NOAEL (subchronic, oral, animal/female, 90 days)	1000 mg/kg bodyweight ppm; mouse

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

triethylamine (121-44-8)	
LC50 fish 1	24 mg/l 96 h
EC50 Daphnia 1	17 mg/l 48 h

benzenesulfonic acid (90218-35-2)	
LC50 fish 1	10 (10 - 100) mg/l 96 h
EC50 Daphnia 1	10 (10 - 100) mg/l 48 h

Polyethylene Glycol Octylphenyl Ether (9036-19-5)	
LC50 fish 1	4 (4 - 8.9) mg/l 96 h
EC50 Daphnia 1	18 (18 - 26) mg/l 48 h

Kaolin (1332-58-7)	
LC50 fish 1	> 1000 mg/l 96 h
EC50 Daphnia 1	> 1000 mg/l 48 h

zinc sulphide (1314-98-3)	
LC50 fish 1	> 0.25 mg/l 96 h
EC50 Daphnia 1	> 29 µg/l 48 h

isopropyl acetate (108-21-4)	
LC50 fish 1	360 mg/l 48 h
EC50 Daphnia 1	810 mg/l 24 h
ErC50 (algae)	165 mg/l 8 d

Sulfur (7704-34-9)	
LC50 fish 1	> 5 µg/l

Polyethylene Glycol (25322-68-3)	
LC50 fish 1	> 100 mg/l
LC50 other aquatic organisms 1	1000 mg/l

copper carbonate (12069-69-1)	
LC50 fish 1	0.81 mg/l 96 h

Isopropanol (67-63-0)	
LC50 fish 1	10000 mg/l

12.2. Persistence and degradability

triethylamine (121-44-8)	
Persistence and degradability	Readily biodegradable.

Polyethylene Glycol Octylphenyl Ether (9036-19-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 60 % 28 d

Kaolin (1332-58-7)	
Persistence and degradability	Not readily biodegradable.

isopropyl acetate (108-21-4)	
Persistence and degradability	Readily biodegradable.

Isopropanol (67-63-0)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

triethylamine (121-44-8)	
BCF fish 1	7.45
Log Pow	1.45

Polyethylene Glycol Octylphenyl Ether (9036-19-5)	
Log Pow	2.7

isopropyl acetate (108-21-4)	
Log Pow	1.28

Stoddard solvent (8052-41-3)	
Log Pow	3.16 - 7.15

Distillates (petroleum), hydrotreated light (64742-47-8)	
Log Kow	2.1 - 5
Bioaccumulative potential	Bioaccumulative potential.

Isopropanol (67-63-0)	
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

TISFRC743C - TEMPILINK STEAM PNK/BRN 743C
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

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

Additional information : Handle empty containers with care because residual vapours are flammable.

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

H code : H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
H3-A - 'Highly flammable' :
— liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
— substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
— solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
— gaseous substances and preparations which are flammable in air at normal pressure, or
— substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : 1210

UN-No.(IATA) : 1210

UN-No. (IMDG) : 1210

UN-No.(ADN) : 1210

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Printing ink

Proper Shipping Name (IATA) : Printing ink

Proper Shipping Name (IMDG) : PRINTING INK

Proper Shipping Name (ADN) : PRINTING INK

Transport document description (ADR) : UN 1210 PRINTING INK, 3, II, (D/E)

14.3. Transport hazard class(es)

Class (ADR) : 3

Classification code (ADR) : F1

Class (IATA) : 3

Class (IMDG) : 3

Class (ADN) : 3

Classification code (ADN) : F1

14.4. Packing group

Packing group (ADR) : II

Packing group (IATA) : II

Packing group (IMDG) : II

Packing group (ADN) : II

14.5. Environmental hazards

Other information : No supplementary information available.

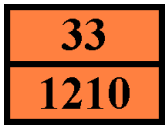
14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33

Classification code (ADR) : F1

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : •3YE

14.6.2. Transport by sea

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-D

Stowage category (IMDG) : B

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 substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 42.9 %

15.1.2. National regulations

Germany

Water hazard class (WGK) : 2 - hazard to waters

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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

according to Regulation (EC) No. 453/2010

Indication of changes:
Original Document.

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 Weight Average
	TSCA: Toxic Substances Control Act

Data sources	:	ESIS (European chemincal Substances Information System; accessed at: http://esis.jrc.ec.europa.eu/index.php?PGM=cla. European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	:	None.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), 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 Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Muta. 1B	Germ cell mutagenicity, Category 1B
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity — Repeated exposure, 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
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
EUH208	Contains . May produce an allergic reaction
R11	Highly flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R22	Harmful if swallowed
R26	Very toxic by inhalation
R35	Causes severe burns
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R38	Irritating to skin
R45	May cause cancer
R46	May cause heritable genetic damage
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking

R67	Vapours may cause drowsiness and dizziness
C	Corrosive
F	Highly flammable
N	Dangerous for the environment
T+	Very toxic
Xi	Irritant
Xn	Harmful

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

Flam. Liq. 2	H225	On basis of test data
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method

LA-CO EU CLP SDS

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product