SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Commission Regulation (EU) 2020/878 and Regulation (EC) No. 1272/2008

Issuing Date 24-May-2015 **Revision Date** 25-May-2023 **Revision Number** 7

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

1.1. Product identifier

Product Code(s) 800025, 800046, 800032

Product Name PSR-4000 LDI EU, PSR-4000 LDI EU Black, PSR-4000 LDI EU Gloss

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Solder mask part A

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Importer
REACH OR: CAPLINQ Europe BV
Industrieweg 15E
1566JN Assendelft
The Netherlands
+31208932224

Supplier
Taiyo America, Inc.
2675 Antler Drive
Carson City, NV 89701
TEL: 775-885-9959 (M-F, 8 AM - 4 PM, Pacific Time Zone)

For further information, please contact
E-mail address SDSinfo@taiyo-america.com

1.4. Emergency telephone number

Emergency telephone +1-813-248-0585 International - product safety issues (24 hours; in most major languages)
+1-800-255-3924 Within U.S.A. only (24 hours)

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2 - (H319)
Reproductive toxicity	Category 1B - (H360FD)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- , Naphtha (petroleum), heavy aromatic

Signal word
Danger

Hazard statements
H319 - Causes serious eye irritation
H360FD - May damage fertility. May damage the unborn child
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use
P264 - Wash face, hands and any exposed skin thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

Causes mild skin irritation. May be harmful in contact with skin.
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Barium sulfate 7727-43-7	20-30	01-2119491274-35-XXXX	231-784-4	[C]	-	-	-
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	10-20	01-2119966911-29-XXXX	203-940-1	Eye Irrit. 2 (H319)	-	-	-
Silica, fused 60676-86-0	10-20	No data available	262-373-8 424-440-1	[C]	-	-	-
Naphtha (petroleum), heavy aromatic	<10	01-2119510128-50-XXXX	(649-424-00-3) 265-198-5	Flam. Liq. 1 (H224)	-	-	-

64742-94-5				Skin Irrit. 2 (H315) Asp. Tox. 1 (H304) Repr. 2 (H361) STOT SE 3 (H336) STOT RE 2 (H373) Aquatic Chronic 2 (H411)			
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	0-5.5	No data available	616-275-0	[C]	-	-	-
Silica 112945-52-5	0.5-2.5	No data available	601-216-3	[C]	-	-	-
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- 71868-10-5	0.5-1.5	No data available	615-621-8	Acute Tox. 4 (H302) Repr. 1B (H360FD) Aquatic Chronic 2 (H411)	-	-	-
Melamine 108-78-1	0.1-1	No data available	(613-345-00-2) 203-615-4	Carc. 2 (H351) STOT RE 2 (H373)	-	-	-
C.I. Pigment Blue 15 147-14-8	< 0.1	No data available	205-685-1	[C], [I]	-	-	-
Naphthalene 91-20-3	<0.1	No data available	(601-052-00-2) 202-049-5	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Ci 21100 5102-83-0	< 0.1	No data available	225-822-9	[C]	-	-	-
1,2,4 Trimethylbenzene 95-63-6	<0.1	No data available	(601-043-00-3) 202-436-9	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Chronic 2 (H411) Flam. Liq. 3 (H226)	-	-	-

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes
[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring
[I] - Restricted substance per REACH Annex XVII

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Barium sulfate 7727-43-7	307000	No data available	No data available	No data available	No data available
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	11000	15100	No data available	No data available	No data available
Naphtha (petroleum), heavy aromatic 64742-94-5	5005	2002	0.5906	No data available	No data available
Silica 112945-52-5	3160	No data available	No data available	No data available	No data available
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- 71868-10-5	No data available	2002	No data available	No data available	No data available
Melamine 108-78-1	3161	1001	5.1952	No data available	No data available
C.I. Pigment Blue 15 147-14-8	10010	5005	No data available	No data available	No data available
Naphthalene 91-20-3	1110	1120	0.4004	No data available	No data available
Ci 21100 5102-83-0	5005	3003	4254.25	No data available	No data available
1,2,4 Trimethylbenzene 95-63-6	3280	3163.16	18	No data available	No data available

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No	SVHC candidates
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	71868-10-5	X
Melamine	108-78-1	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water. Get medical attention if symptoms occur.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms May cause redness and tearing of the eyes. Burning sensation. Prolonged contact may cause redness and irritation.

Effects of Exposure May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. May cause damage to organs through prolonged or repeated exposure.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2 or water spray.

Unsuitable extinguishing media None known based on information supplied.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known based on information supplied.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Storage class (TRGS 510) LGK 6.1C.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Barium sulfate 7727-43-7	-	-	TWA: 5 mg/m^3	TWA: 10.0 mg/m^3	TWA: 10 mg/m^3 TWA: 4 mg/m^3
Silica, fused 60676-86-0	-	TWA: 0.3 mg/m^3	TWA: 0.1 mg/m^3	-	TWA: 0.08 mg/m^3
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	-	TWA: 0.2 mg/m^3 STEL 1.6 mg/m^3	TWA: 1 mg/m^3 TWA: 0.05 mg/m^3	TWA: 1.0 mg/m^3 TWA: 0.05 mg/m^3	TWA: 0.2 mg/m^3 TWA: 0.05 mg/m^3 TWA: 1 mg/m^3 STEL: 2 mg/m^3
Silica 112945-52-5	-	TWA: 4 mg/m^3	-	-	-
C.I. Pigment Blue 15 147-14-8	-	TWA: 1 mg/m^3 TWA: 0.1 mg/m^3 STEL 4 mg/m^3 STEL 0.4 mg/m^3	-	-	-
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m^3	TWA: 10 ppm TWA: 50 mg/m^3 H*	TWA: 10 ppm TWA: 53 mg/m^3 STEL: 15 ppm STEL: 80 mg/m^3 D*	STEL: 75.0 mg/m^3 TWA: 50.0 mg/m^3	TWA: 10 ppm TWA: 50 mg/m^3
1,2,4 Trimethylbenzene	TWA: 20 ppm	TWA: 20 ppm	-	TWA: 20 ppm	TWA: 20 ppm

95-63-6	TWA: 100 mg/m³	TWA: 100 mg/m³ STEL 30 ppm STEL 150 mg/m³		TWA: 100.0 mg/m³	TWA: 100 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Silica, fused 60676-86-0	-	-	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³	-	-
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 1 mg/m³ Ceiling: 2 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.05 mg/m³ STEL: 2 mg/m³ STEL: 0.4 mg/m³ STEL: 0.1 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.02 mg/m³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m³	TWA: 50 mg/m³ Ceiling: 100 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ STEL: 20 ppm STEL: 100 mg/m³	TWA: 10 ppm TWA: 50 mg/m³	TWA: 1 ppm TWA: 5 mg/m³ STEL: 2 ppm STEL: 10 mg/m³
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m³	TWA: 100 mg/m³ Ceiling: 250 mg/m³ D*	TWA: 20 ppm TWA: 100 mg/m³ STEL: 40 ppm STEL: 200 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Barium sulfate 7727-43-7	-	TWA: 1.25 mg/m³ TWA: 10 mg/m³	TWA: 4 mg/m³ TWA: 0.3 mg/m³ Peak: 2.4 mg/m³	-	-
Silica, fused 60676-86-0	-	TWA: 0.3 mg/m³	TWA: 0.3 mg/m³	-	-
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	-	TWA: 0.2 mg/m³ TWA: 0.02 mg/m³	TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Peak: 1.6 mg/m³ Peak: 0.16 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.05 mg/m³ STEL: 2 mg/m³	-
Silica 112945-52-5	-	-	TWA: 0.02 mg/m³ Peak: 0.16 mg/m³	-	-
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m³	TWA: 0.4 ppm TWA: 2 mg/m³ H*	*	TWA: 10 ppm TWA: 50 mg/m³	TWA: 50 mg/m³ TWA: 10 ppm
Ci 21100 5102-83-0	-	-	TWA: 0.3 mg/m³ Peak: 2.4 mg/m³	-	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m³ STEL: 50 ppm STEL: 250 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³ Peak: 40 ppm Peak: 200 mg/m³	TWA: 25 ppm TWA: 125 mg/m³	TWA: 100 mg/m³ TWA: 20 ppm
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Barium sulfate 7727-43-7	TWA: 5 mg/m³ STEL: 15 mg/m³	-	TWA: 5 mg/m³	-	-
Silica, fused 60676-86-0	TWA: 0.08 mg/m³ STEL: 0.24 mg/m³	-	-	-	-
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³ TWA: 1 mg/m³ STEL: 0.6 mg/m³ STEL: 0.15 mg/m³ STEL: 2 mg/m³	TWA: 0.05 mg/m³	TWA: 1 mg/m³ TWA: 0.1 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Melamine 108-78-1	-	-	-	-	TWA: 0.5 mg/m³

C.I. Pigment Blue 15 147-14-8	-	-	TWA: 1 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m³ STEL: 30 ppm STEL: 150 mg/m³	-	TWA: 10 ppm TWA: 52 mg/m³ cute*	TWA: 10 ppm TWA: 50 mg/m³	TWA: 10 ppm TWA: 50 mg/m³
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m³ STEL: 60 ppm STEL: 300 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	-	TWA: 20 ppm TWA: 100 mg/m³	-

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Barium sulfate 7727-43-7	-	-	-	TWA: 0.5 mg/m³ STEL: 1.5 mg/m³	-
Silica, fused 60676-86-0	-	-	-	-	TWA: 2 mg/m³ TWA: 1 mg/m³
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	-	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³ TWA: 1 mg/m³ STEL: 0.6 ppm STEL: 0.15 mg/m³ STEL: 3 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m³	TWA: 10 ppm TWA: 50 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ STEL: 16 ppm STEL: 80 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ STEL: 20 ppm STEL: 75 mg/m³	STEL: 50 mg/m³ TWA: 20 mg/m³ skóra*
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³ STEL: 40 ppm STEL: 200 mg/m³	TWA: 20 ppm TWA: 100 mg/m³ STEL: 150 mg/m³ STEL: 30 ppm	STEL: 170 mg/m³ TWA: 100 mg/m³ skóra*

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Barium sulfate 7727-43-7	TWA: 5 mg/m³	-	TWA: 4 mg/m³ TWA: 1.5 mg/m³	-	TWA: 10 mg/m³
Silica, fused 60676-86-0	-	-	-	TWA: 0.3 mg/m³	-
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³	TWA: 0.05 mg/m³ STEL: 0.4 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.01 mg/m³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m³ STEL: 15 ppm Cutânea*	TWA: 10 ppm TWA: 50 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ K* Ceiling: 80 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ STEL: 10 ppm STEL: 50 mg/m³ K*	TWA: 10 ppm TWA: 53 mg/m³ STEL: 15 ppm STEL: 80 mg/m³ vía dérmica*
Ci 21100 5102-83-0	-	-	TWA: 8 mg/m³ STEL: 40 mg/m³	-	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³	TWA: 20 ppm TWA: 100 mg/m³ STEL: 40 ppm STEL: 200 mg/m³	TWA: 20 ppm TWA: 100 mg/m³

Chemical name	Sweden	Switzerland	United Kingdom
Barium sulfate 7727-43-7	-	TWA: 3 mg/m³ TWA: 10 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	NGV: 15 ppm NGV: 110 mg/m³ Vägledande KGV: 30 ppm	-	-

	Vägledande KGV: 220 mg/m³ H*		
Silica, fused 60676-86-0	-	TWA: 0.3 mg/m³	TWA: 0.08 mg/m³ STEL: 0.24 mg/m³
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	NGV: 0.2 mg/m³ NGV: 0.05 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.1 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³ TWA: 1 mg/m³ STEL: 0.6 mg/m³ STEL: 0.15 mg/m³ STEL: 2 mg/m³
C.I. Pigment Blue 15 147-14-8	-	-	TWA: 1 mg/m³ STEL: 2 mg/m³
Naphthalene 91-20-3	NGV: 10 ppm NGV: 50 mg/m³ Vägledande KGV: 15 ppm Vägledande KGV: 80 mg/m³	TWA: 10 ppm TWA: 50 mg/m³ H*	-
1,2,4 Trimethylbenzene 95-63-6	NGV: 20 ppm NGV: 100 mg/m³ Bindande KGV: 35 ppm Bindande KGV: 170 mg/m³	-	-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	-	20 µg/L (blood - whole blood not provided)	-	-	-
Chemical name	**Denmark**	**Finland**	**France**	**Germany DFG**	**Germany TRGS**
Iron manganese oxide ((Fe,Mn)2O3) 75864-23-2	-	-	-	15 µg/L - BAR (end of exposure or end of shift) blood 15 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) blood	-
Naphthalene 91-20-3	-	-	-	35 µg/L - BAR (end of exposure or end of shift) urine 35 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) urine 4000 µg/L - (end of exposure or end of shift) - urine 13500 µg/L - (end of exposure or end of shift) - urine 23300 µg/L - (end of exposure or end of shift) - urine 34200 µg/L - (end of exposure or end of shift) - urine 30 µg/L - (end of exposure or end of shift) - urine	-

				60 µg/L - (end of exposure or end of shift) - urine 175 µg/L - (end of exposure or end of shift) - urine 280 µg/L - (end of exposure or end of shift) - urine 390 µg/L - (end of exposure or end of shift) - urine 220 µg/L - (end of exposure or end of shift) - urine 500 µg/L - (end of exposure or end of shift) - urine 1500 µg/L - (end of exposure or end of shift) - urine 2300 µg/L - (end of exposure or end of shift) - urine 3300 µg/L - (end of exposure or end of shift) - urine	
1,2,4 Trimethylbenzene 95-63-6	-	-	600 mg/g creatinine - urine (Total Dimethylbenzoic acids (after hydrolysis) in urine) - end of shift after several shits	400 mg/g Creatinine (urine - Dimethylbenzoic acid (sum of all isomers after hydrolysis) end of shift) 400 mg/g Creatinine (urine - Dimethylbenzoic acid (sum of all isomers after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 400 mg/g Creatinine - BAT (end of exposure or end of shift) urine 400 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine	400 mg/g Creatinine (urine - Dimethylbenzoic acid (sum of all isomers after hydrolysis) end of shift) 400 mg/g Creatinine (urine - Dimethylbenzoic acid (sum of all isomers after hydrolysis) for long-term exposures: at the end of the shift after several shifts)

Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII
Naphthalene 91-20-3	-	-	-	- () - end of shift

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
1,2,4 Trimethylbenzene 95-63-6	400 mg/g Creatinine - urine (Dimethylbenzoic	-	-	-

	acid (all isomers after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays			

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Barium sulfate 7727-43-7	-	-	10 mg/m^3 [4] [6] 10 mg/m^3 [5] [6]
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	-	1.48 mg/kg bw/day [4] [6]	10.45 mg/m^3 [4] [6]
Melamine 108-78-1	-	11.8 mg/kg bw/day [4] [6] 117 mg/kg bw/day [4] [7]	8.3 mg/m^3 [4] [6] 82.3 mg/m^3 [4] [7]
C.I. Pigment Blue 15 147-14-8	-	450 mg/kg bw/day [4] [6]	4 mg/m^3 [4] [6]
Naphthalene 91-20-3	-	3.57 mg/kg bw/day [4] [6]	25 mg/m^3 [4] [6] 25 mg/m^3 [5] [6]
Ci 21100 5102-83-0	-	45 mg/kg bw/day [4] [6]	3 mg/m^3 [5] [6]
1,2,4 Trimethylbenzene 95-63-6	-	16171 mg/kg bw/day [4] [6]	100 mg/m^3 [4] [6] 100 mg/m^3 [4] [7] 100 mg/m^3 [5] [6] 100 mg/m^3 [5] [7]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Barium sulfate 7727-43-7	13000 mg/kg bw/day [4] [6]	-	10 mg/m^3 [4] [6]
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	0.75 mg/kg bw/day [4] [6]	-	2.6 mg/m^3 [4] [6]
Melamine 108-78-1	0.42 mg/kg bw/day [4] [6]	-	1.5 mg/m^3 [4] [6]
C.I. Pigment Blue 15 147-14-8	45 mg/kg bw/day [4] [6]	-	-
Ci 21100 5102-83-0	28 mg/kg bw/day [4] [6]	-	-
1,2,4 Trimethylbenzene 95-63-6	15 mg/kg bw/day [4] [6]	-	29.4 mg/m^3 [4] [6] 29.4 mg/m^3 [4] [7] 29.4 mg/m^3 [5] [6] 29.4 mg/m^3 [5] [7]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Barium sulfate 7727-43-7	115 µg/L	-	-	-	-
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	0.11 mg/L	1.1 mg/L	0.01 mg/L	-	-
Naphtha (petroleum), heavy aromatic 64742-94-5	0.001 mg/L	-	0.001 mg/L	-	-
Melamine 108-78-1	0.51 mg/L	2 mg/L	0.051 mg/L	-	-
Naphthalene 91-20-3	2.4 µg/L	20 µg/L	2.4 µg/L	-	-
1,2,4 Trimethylbenzene 95-63-6	0.12 mg/L	0.12 mg/L	0.12 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Barium sulfate 7727-43-7	600.4 mg/kg sediment dw	-	62.2 mg/L	207.7 mg/kg soil dw	-
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	0.4748 mg/kg sediment dw	0.04748 mg/kg sediment dw	10 mg/L	0.0448 mg/kg soil dw	-
Melamine 108-78-1	2.524 mg/kg sediment dw	0.2524 mg/kg sediment dw	200 mg/L	0.206 mg/kg soil dw	-
C.I. Pigment Blue 15 147-14-8	10 mg/kg sediment dw	1 mg/kg sediment dw	-	1 mg/kg soil dw	-
Naphthalene 91-20-3	67.2 µg/kg sediment dw	67.2 µg/kg sediment dw	2.9 mg/L	53.3 µg/kg soil dw	-
1,2,4 Trimethylbenzene 95-63-6	13.56 mg/kg sediment dw	13.56 mg/kg sediment dw	2.41 mg/L	2.34 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

Skin and body protection Wear suitable protective clothing.

Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid
Physical state	Liquid
Colour	Varies
Odour	Mild solvent
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	100 °C	
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure		No data available
Relative density	1.52	
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

VOC content	23 %
VOC	361 g/L

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Incompatible materials.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO2). Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation. Prolonged contact may cause redness and irritation. May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Prolonged contact may cause redness and irritation.

Acute toxicity
Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	> 5,000 mg/kg
ATEmix (dermal)	> 2,000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Barium sulfate	= 307000 mg/kg (Rat)	-	-
2-(2-ethoxyethoxy)ethyl acetate	= 11 g/kg (Rat)	= 15100 mg/kg (Rabbit)	-
Naphtha (petroleum), heavy aromatic	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m^3 (Rat) 4 h
Silica	= 3160 mg/kg (Rat)	-	-
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	-	> 2000 mg/kg (Rat)	-
Melamine	= 3161 mg/kg (Rat)	> 1 g/kg (Rabbit)	> 5.19 g/m^3 (Rat) 4 h
C.I. Pigment Blue 15	> 10000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Naphthalene	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h
Ci 21100	> 5 g/kg (Rat)	> 3000 mg/kg (Rat)	> 4250 mg/L (Rat) 4 h
1,2,4 Trimethylbenzene	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m^3 (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Melamine	Carc. 2
Naphthalene	Carc. 2

Reproductive toxicity May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Repr. 1B

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Target organ effects Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system. Blood. Gastrointestinal tract (GI).

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Naphtha (petroleum), heavy aromatic 64742-94-5	-	LC50: =19mg/L (96h, Pimephales promelas) LC50: =2.34mg/L (96h, Oncorhynchus mykiss) LC50: =1740mg/L (96h, Lepomis macrochirus) LC50: =45mg/L (96h, Pimephales promelas) LC50: =41mg/L (96h, Pimephales promelas)	-	EC50: =0.95mg/L (48h, Daphnia magna)
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- 71868-10-5	-	LC50: =9mg/L (96h, Danio rerio)	-	-
Melamine 108-78-1	EC50: =940mg/L (96h, Scenedesmus pannonicus)	LC50: >3000mg/L (96h, Poecilia reticulata)	-	EC50: >2000mg/L (48h, Daphnia magna)
Naphthalene 91-20-3	-	LC50: 5.74 - 6.44mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Oncorhynchus mykiss) LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss) LC50: =1.99mg/L (96h, Pimephales promelas)	-	LC50: =2.16mg/L (48h, Daphnia magna) EC50: =1.96mg/L (48h, Daphnia magna) EC50: 1.09 - 3.4mg/L (48h, Daphnia magna)

		LC50: =31.0265mg/L (96h, Lepomis macrochirus)		
1,2,4 Trimethylbenzene 95-63-6	-	LC50: 7.19 - 8.28mg/L (96h, Pimephales promelas)	-	EC50: =6.14mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
2-(2-ethoxyethoxy)ethyl acetate	0.74
Naphtha (petroleum), heavy aromatic	6.5
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	3.09
Melamine	-1.22
C.I. Pigment Blue 15	6.6
Naphthalene	3.4
Ci 21100	1.8
1,2,4 Trimethylbenzene	3.63

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Barium sulfate 7727-43-7	The substance is not PBT / vPvB
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	The substance is not PBT / vPvB
Naphtha (petroleum), heavy aromatic 64742-94-5	The substance is not PBT / vPvB
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- 71868-10-5	The substance is not PBT / vPvB
Melamine 108-78-1	The substance is not PBT / vPvB
C.I. Pigment Blue 15 147-14-8	The substance is not PBT / vPvB
Naphthalene 91-20-3	The substance is not PBT / vPvB
Ci 21100 5102-83-0	The substance is not PBT / vPvB
1,2,4 Trimethylbenzene 95-63-6	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG Not regulated
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID Not regulated
14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None

ADR Not regulated
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None

IATA Not regulated
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable

14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None
Note: None

SECTION 15: Regulatory information

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

National regulations

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	RG 84
Naphtha (petroleum), heavy aromatic 64742-94-5	RG 84
1,2,4 Trimethylbenzene 95-63-6	RG 84

Germany
Water hazard class (WGK) obviously hazardous to water (WGK 2)

Netherlands

Carcinogenic, mutagenic and reproductive toxic effects

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Iron manganese oxide ((Fe,Mn)2O3)	-	-	Fertility Category 2 Development Category 2
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	-	-	Development Category 1B Fertility Category 1B

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- - 71868-10-5	30. 75.	-
C.I. Pigment Blue 15 - 147-14-8	75.	-
Naphthalene - 91-20-3	75.	-
Ci 21100 - 5102-83-0	75.	-
1,2,4 Trimethylbenzene - 95-63-6	75.	-

Persistent Organic Pollutants
Not applicable

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Naphtha (petroleum), heavy aromatic - 64742-94-5	-	25000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

EU - Water Framework Directive (2000/60/EC)

Chemical name	EU - Water Framework Directive (2000/60/EC)
Naphthalene - 91-20-3	Priority substance

EU - Environmental Quality Standards (2008/105/EC)

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Naphthalene - 91-20-3	Priority substance

International Inventories
Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H224 - Extremely flammable liquid and vapour
H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H360FD - May damage fertility. May damage the unborn child
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Legend
ATE: Acute Toxicity Estimate
SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)

Ceiling	Maximum limit value	*	Skin designation
SCBA	Self-contained breathing apparatus		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet