

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 30-Aug-2023 Revision Number 5

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

1.1. Product identifier

Product Code(s) 400441, 400443
Product Name PSR-4100 WL (HD) 70/30, PSR-4100 YL (HD) 70/30
Synonyms None
Pure substance/mixture Mixture

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

Recommended use Legend ink part A
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Importer	Supplier
REACH OR: CAPLINQ Europe BV Industrieweg 15E 1566JN Assendelft The Netherlands +31208932224	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
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation	Category 2 - (H319)
Germ cell mutagenicity	Category 1B - (H340)
Carcinogenicity	Category 1B - (H350)
Reproductive toxicity	Category 1B - (H360FD)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains Titanium dioxide; 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- ; Petroleum naphtha, light aromatic



Signal word
Danger

Hazard statements

H319 - Causes serious eye irritation.
H340 - May cause genetic defects.
H350 - May cause cancer.
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

Combustible liquid. 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)
Titanium dioxide 13463-67-7	5-30	01-211948937 9-17-XXXX	(022-006-00-2) 236-675-5	Carc. 2 (H351i) (*10)	-	-	-
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	5-30	01-211996691 1-29-XXXX	203-940-1	Eye Irrit. 2 (H319)	-	-	-
Barium sulfate 7727-43-7	1-20	01-211949127 4-35-XXXX	231-784-4	[C]	-	-	-
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-mor	1-5	No data available	615-621-8	Acute Tox. 4 (H302) Repr. 1B	-	-	-

pholinyl)- 71868-10-5				(H360FD) Aquatic Chronic 2 (H411)			
Butanamide, 2,2'-[(3,3'-dichloro[1, 1'-biphenyl]-4,4'-diyl 5468-75-7	0-5	No data available	226-789-3	No data available	-	-	-
(2-methoxymethyleth oxy)propanol 34590-94-8	1-5	01-211945001 1-60-XXXX	252-104-2	[C]	-	-	-
Petroleum naphtha, light aromatic 64742-95-6	0.1-1	No data available	(649-356-00-4) 265-199-0	Asp. Tox. 1 (H304) Carc. 1B (H350) Muta. 1B (H340)	-	-	-
Bentonite 1302-78-9	0.1-1	No data available	215-108-5	[C]	-	-	-
Propylene glycol monomethyl ether acetate 108-65-6	<0.1	No data available	(607-195-00-7) 203-603-9	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

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
Titanium dioxide 13463-67-7	10010	No data available	5.09	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
Barium sulfate 7727-43-7	307000	No data available	No data available	No data available	No data available
1-Propanone, 2-methyl-1-[4-(methylthio)p henyl]-2-(4-morpholinyl)- 71868-10-5	No data available	2002	No data available	No data available	No data available
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-bip henyl]-4,4'-diyl 5468-75-7	5005	No data available	0.2302	No data available	No data available
(2-methoxymethylethoxy)p ropanol 34590-94-8	5350	9500	No data available	No data available	No data available
Petroleum naphtha, light aromatic 64742-95-6	8400	2002	No data available	No data available	No data available
Bentonite 1302-78-9	5005	No data available	No data available	No data available	No data available
Propylene glycol	8532	5005	24	No data available	No data available

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
monomethyl ether acetate 108-65-6					

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
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 off immediately with soap and plenty of water while removing all contaminated clothes and shoes. 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	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

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

Symptoms	May cause redness and tearing of the eyes. Burning sensation.
Effects of Exposure	May cause cancer. May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Mutagenic effects.

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

Note to doctors	Treat symptomatically.
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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 Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

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 Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing.

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.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dyke far ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. 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 Use personal protection equipment. Do not breathe vapour or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use with local exhaust ventilation. 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. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. 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. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.

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
Titanium dioxide 13463-67-7	-	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10.0 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³
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
(2-methoxymethylethoxy) propanol 34590-94-8	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 307 mg/m ³ STEL 100 ppm STEL 614 mg/m ³ H*	TWA: 50 ppm TWA: 308 mg/m ³ D*	TWA: 50 ppm TWA: 308.0 mg/m ³ K*	TWA: 50 ppm TWA: 308 mg/m ³ *
Bentonite 1302-78-9	-	-	-	TWA: 3.0 mg/m ³ TWA: 6.0 mg/m ³	-
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ *	TWA: 50 ppm TWA: 275 mg/m ³ STEL 100 ppm STEL 550 mg/m ³ H*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ D*	STEL: 100 ppm STEL: 550.0 mg/m ³ TWA: 50 ppm TWA: 275.0 mg/m ³ K*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ *
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Titanium dioxide 13463-67-7	-	-	TWA: 6 mg/m ³ STEL: 12 mg/m ³	TWA: 5 mg/m ³	-
(2-methoxymethylethoxy) propanol 34590-94-8	* TWA: 50 ppm TWA: 308 mg/m ³	TWA: 270 mg/m ³ Ceiling: 550 mg/m ³ D*	TWA: 50 ppm TWA: 309 mg/m ³ H* STEL: 100 ppm STEL: 618 mg/m ³	TWA: 50 ppm TWA: 308 mg/m ³ A*	TWA: 50 ppm TWA: 310 mg/m ³ iho*
Bentonite 1302-78-9	-	TWA: 6.0 mg/m ³	-	-	-
Propylene glycol monomethyl ether acetate 108-65-6	* STEL: 100 ppm STEL: 550 mg/m ³ TWA: 50 ppm TWA: 275 mg/m ³	TWA: 270 mg/m ³ Ceiling: 550 mg/m ³ D*	TWA: 50 ppm TWA: 275 mg/m ³ H* STEL: 550 mg/m ³ STEL: 100 ppm	S+ TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ A*	TWA: 50 ppm TWA: 270 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³	TWA: 0.3 mg/m ³ Peak: 2.4 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	-
Barium sulfate 7727-43-7	-	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³	TWA: 4 mg/m ³ TWA: 0.3 mg/m ³ Peak: 2.4 mg/m ³	-	-
(2-methoxymethylethoxy) propanol 34590-94-8	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 310 mg/m ³	TWA: 50 ppm TWA: 310 mg/m ³ Peak: 50 ppm Peak: 310 mg/m ³	TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³ *	TWA: 308 mg/m ³ TWA: 50 ppm
Propylene glycol monomethyl ether acetate	TWA: 50 ppm TWA: 275 mg/m ³	TWA: 50 ppm TWA: 270 mg/m ³	TWA: 50 ppm TWA: 270 mg/m ³	TWA: 50 ppm TWA: 275 mg/m ³	TWA: 275 mg/m ³ TWA: 50 ppm

108-65-6	STEL: 100 ppm STEL: 550 mg/m ³ *		Peak: 50 ppm Peak: 270 mg/m ³	STEL: 100 ppm STEL: 550 mg/m ³ *	STEL: 550 mg/m ³ STEL: 100 ppm
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 5 mg/m ³
Barium sulfate 7727-43-7	TWA: 5 mg/m ³ STEL: 15 mg/m ³	-	TWA: 5 mg/m ³	-	-
(2-methoxymethylethoxy) propanol 34590-94-8	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm STEL: 924 mg/m ³ Sk*	TWA: 50 ppm TWA: 308 mg/m ³ cute*	TWA: 100 ppm TWA: 606 mg/m ³ STEL: 150 ppm STEL: 909 mg/m ³ cute*	TWA: 50 ppm TWA: 308 mg/m ³ Ada*	O* TWA: 300 mg/m ³ TWA: 50 ppm STEL: 450 mg/m ³ STEL: 75 ppm
Bentonite 1302-78-9	-	-	TWA: 1 mg/m ³	-	-
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ Sk*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ cute*	-	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ Ada*	O* TWA: 50 ppm TWA: 250 mg/m ³ STEL: 75 ppm STEL: 400 mg/m ³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Titanium dioxide 13463-67-7	-	-	-	TWA: 5 mg/m ³ STEL: 10 mg/m ³	STEL: 30 mg/m ³ TWA: 10 mg/m ³
Barium sulfate 7727-43-7	-	-	-	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	-
(2-methoxymethylethoxy) propanol 34590-94-8	Peau* TWA: 308 mg/m ³ TWA: 50 ppm	skin* TWA: 50 ppm TWA: 308 mg/m ³	TWA: 48.7 ppm TWA: 300 mg/m ³	TWA: 50 ppm TWA: 300 mg/m ³ STEL: 75 ppm STEL: 375 mg/m ³ H*	STEL: 480 mg/m ³ TWA: 240 mg/m ³ skóra*
Propylene glycol monomethyl ether acetate 108-65-6	Peau* STEL: 100 ppm STEL: 550 mg/m ³ TWA: 50 ppm TWA: 275 mg/m ³	skin* STEL: 100 ppm STEL: 550 mg/m ³ TWA: 50 ppm TWA: 275 mg/m ³	TWA: 100 ppm TWA: 550 mg/m ³	TWA: 50 ppm TWA: 270 mg/m ³ STEL: 75 ppm STEL: 337.5 mg/m ³ H*	STEL: 520 mg/m ³ TWA: 260 mg/m ³ skóra*
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 15 mg/m ³	TWA: 5 mg/m ³	-	TWA: 10 mg/m ³
Barium sulfate 7727-43-7	TWA: 5 mg/m ³	-	TWA: 4 mg/m ³ TWA: 1.5 mg/m ³	-	TWA: 10 mg/m ³
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-bi phenyl]-4,4'-diyl 5468-75-7	-	-	TWA: 8 mg/m ³ STEL: 40 mg/m ³	-	-
(2-methoxymethylethoxy) propanol 34590-94-8	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm Cutânea*	TWA: 50 ppm TWA: 308 mg/m ³ P*	TWA: 50 ppm TWA: 308 mg/m ³ K*	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 50 ppm STEL: 308 mg/m ³ K*	TWA: 50 ppm TWA: 308 mg/m ³ via dérmica*
Bentonite 1302-78-9	TWA: 1 mg/m ³	-	TWA: 6 mg/m ³	-	TWA: 1 mg/m ³
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ Cutânea*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ P*	TWA: 50 ppm TWA: 275 mg/m ³ K* Ceiling: 550 mg/m ³	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ K*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 100 ppm STEL: 550 mg/m ³ via dérmica*
Chemical name	Sweden		Switzerland	United Kingdom	

Titanium dioxide 13463-67-7	NGV: 5 mg/m ³	TWA: 3 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	NGV: 15 ppm NGV: 110 mg/m ³ Vägledande KGV: 30 ppm Vägledande KGV: 220 mg/m ³ H*	-	-
Barium sulfate 7727-43-7	-	TWA: 3 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
(2-methoxymethylethoxy)propanol 34590-94-8	NGV: 50 ppm NGV: 300 mg/m ³ Vägledande KGV: 75 ppm Vägledande KGV: 450 mg/m ³ H*	TWA: 50 ppm TWA: 300 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm STEL: 924 mg/m ³ Sk*
Propylene glycol monomethyl ether acetate 108-65-6	NGV: 50 ppm NGV: 275 mg/m ³ Bindande KGV: 100 ppm Bindande KGV: 550 mg/m ³ H*	TWA: 50 ppm TWA: 275 mg/m ³ STEL: 50 ppm STEL: 275 mg/m ³	TWA: 50 ppm TWA: 274 mg/m ³ STEL: 100 ppm STEL: 548 mg/m ³ Sk*

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	-	1.48 mg/kg bw/day [4] [6]	10.45 mg/m ³ [4] [6]
Barium sulfate 7727-43-7	-	-	10 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'- diyl) 5468-75-7	-	45 mg/kg bw/day [4] [6]	3 mg/m ³ [5] [6]
(2-methoxymethylethoxy)propanol 34590-94-8	-	283 mg/kg bw/day [4] [6]	308 mg/m ³ [4] [6]
Petroleum naphtha, light aromatic 64742-95-6	-	-	1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]
Propylene glycol monomethyl ether acetate 108-65-6	-	796 mg/kg bw/day [4] [6]	275 mg/m ³ [4] [6] 550 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
2-(2-ethoxyethoxy)ethyl acetate	0.75 mg/kg bw/day [4] [6]	-	2.6 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
112-15-2			
Barium sulfate 7727-43-7	13000 mg/kg bw/day [4] [6]	-	10 mg/m ³ [4] [6]
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'- diyl 5468-75-7	28 mg/kg bw/day [4] [6]	-	-
(2-methoxymethylethoxy)propanol 34590-94-8	36 mg/kg bw/day [4] [6]	-	37.2 mg/m ³ [4] [6]
Petroleum naphtha, light aromatic 64742-95-6	-	-	1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
Propylene glycol monomethyl ether acetate 108-65-6	36 mg/kg bw/day [4] [6]	-	33 mg/m ³ [4] [6] 33 mg/m ³ [5] [6]

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
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	0.11 mg/L	1.1 mg/L	0.01 mg/L	-	-
Barium sulfate 7727-43-7	115 µg/L	-	-	-	-
(2-methoxymethylethoxy)p ropanol 34590-94-8	19 mg/L	190 mg/L	1.9 mg/L	-	-
Propylene glycol monomethyl ether acetate 108-65-6	0.635 mg/L	6.35 mg/L	0.0635 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
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	-
Barium sulfate 7727-43-7	600.4 mg/kg sediment dw	-	62.2 mg/L	207.7 mg/kg soil dw	-
(2-methoxymethylethoxy)p ropanol 34590-94-8	70.2 mg/kg sediment dw	7.02 mg/kg sediment dw	4168 mg/L	2.74 mg/kg soil dw	-
Propylene glycol monomethyl ether acetate 108-65-6	3.29 mg/kg sediment dw	0.329 mg/kg sediment dw	100 mg/L	0.29 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Personal protective equipment	
Eye/face protection	Tight sealing safety 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. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. 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	White or Yellow
Odour	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	78 °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	1.40	
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** 24 %9.2.1. Information with regards to physical hazard classes
Not applicable9.2.2. 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** Yes.**10.3. Possibility of hazardous reactions****Possibility of hazardous reactions** None under normal processing.**10.4. Conditions to avoid****Conditions to avoid** Heat, flames and sparks. 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. May cause 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.

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
Titanium dioxide	> 10000 mg/kg (Rat)	-	= 5.09 mg/L (Rat) 4 h
2-(2-ethoxyethoxy)ethyl acetate	= 11 g/kg (Rat)	= 15100 mg/kg (Rabbit)	-
Barium sulfate	= 307000 mg/kg (Rat)	-	-
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	-	> 2000 mg/kg (Rat)	-
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl	> 5 g/kg (Rat)	-	> 230 mg/m ³ (Rat) 4 h
(2-methoxymethylethoxy)propanol	= 5.35 g/kg (Rat)	= 9500 mg/kg (Rabbit)	-
Petroleum naphtha, light aromatic	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Bentonite	> 5000 mg/kg (Rat)	-	-
Propylene glycol monomethyl ether acetate	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 mg/m ³ (Rat) 6 h

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

Skin corrosion/irritation Based on available data, the classification criteria are not met.

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 Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

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

Chemical name	European Union
Petroleum naphtha, light aromatic	Muta. 1B

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

Chemical name	European Union
Titanium dioxide	Carc. 2
Petroleum naphtha, light aromatic	Carc. 1B

Reproductive toxicity Classification based on data available for ingredients. 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 Respiratory system. Eyes. Central nervous system. Lungs.

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
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- 71868-10-5	-	LC50: =9mg/L (96h, Danio rerio)	-	-
(2-methoxymethylethoxy)propanol 34590-94-8	-	LC50: >10000mg/L (96h, Pimephales promelas)	-	LC50: =1919mg/L (48h, Daphnia magna)
Petroleum naphtha, light aromatic 64742-95-6	-	LC50: =9.22mg/L (96h, Oncorhynchus mykiss)	-	EC50: =6.14mg/L (48h, Daphnia magna)
Bentonite 1302-78-9	-	LC50: =19000mg/L (96h, Oncorhynchus mykiss)	-	-
Propylene glycol monomethyl ether acetate 108-65-6	-	LC50: =161mg/L (96h, Pimephales promelas)	-	EC50: >500mg/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
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	3.09
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl (2-methoxymethylethoxy)propanol	0.5
Propylene glycol monomethyl ether acetate	1.2

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
Titanium dioxide 13463-67-7	The substance is not PBT / vPvB
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	The substance is not PBT / vPvB
Barium sulfate 7727-43-7	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
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl 5468-75-7	The substance is not PBT / vPvB
(2-methoxymethylethoxy)propanol 34590-94-8	The substance is not PBT / vPvB
Petroleum naphtha, light aromatic 64742-95-6	The substance is not PBT / vPvB
Propylene glycol monomethyl ether acetate 108-65-6	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
(2-methoxymethylethoxy)propanol 34590-94-8	RG 84
Petroleum naphtha, light aromatic 64742-95-6	RG 84
Propylene glycol monomethyl ether acetate 108-65-6	RG 84

Germany

Water hazard class (WGK) strongly hazardous to water (WGK 3)

Netherlands**Carcinogenic, mutagenic and reproductive toxic effects**

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
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
Titanium dioxide - 13463-67-7	75.	-
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)- - 71868-10-5	30. 75.	-
Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl - 5468-75-7	75.	-
Petroleum naphtha, light aromatic - 64742-95-6	28. 29. 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)
Petroleum naphtha, light aromatic - 64742-95-6	-	25000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Bentonite - 1302-78-9	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Bentonite - 1302-78-9	Simplified procedure - Category 7

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**

H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H319 - Causes serious eye irritation
 H351i - Suspected of causing cancer if inhaled
 H360FD - May damage fertility. May damage the unborn child
 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) Substances
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

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

Agency for Toxic Substances and Disease Registry (ATSDR)
 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 Library of Medicine's PubMed database (NLM PUBMED)
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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Disclaimer

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End of Safety Data Sheet