

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 2

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

1.1. Product identifier

Product Code(s) 400609

Product Name X-77

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Etch Resist Ink

Uses advised against No information available

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

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity — repeated exposure	Category 2 - (H373)
Aspiration hazard	Category 1 - (H304)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Naphtha (petroleum), heavy aromatic; Naphthalene

**Signal word**

Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H351 - Suspected of causing cancer.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe vapor or mist.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P391 - Collect spillage.

Unknown acute toxicity

69.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

Combustible liquid. May be harmful in contact with skin. Toxic to aquatic life.

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)

Talc 14807-96-6	20 - 30	01-212014027 8-58-XXXX	238-877-9	[C]	-	-	-
Barium sulfate 7727-43-7	10 - 20	01-211949127 4-35-XXXX	231-784-4	[C]	-	-	-
Naphtha (petroleum), heavy aromatic 64742-94-5	10 - < 20	01-211951012 8-50-XXXX	(649-424-00-3) 265-198-5	Flam. Liq. 1 (H224) Skin Irrit. 2 (H315) Asp. Tox. 1 (H304) Repr. 2 (H361) STOT SE 3 (H336) STOT RE 2 (H373) Aquatic Chronic 2 (H411)	-	-	-
1-Butoxy-2-propanol 5131-66-8	5 - 10	No data available	(603-052-00-8) 225-878-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-
2-(2-ethoxyethoxy)et hyl acetate 112-15-2	1 - 5	01-211996691 1-29-XXXX	203-940-1	Eye Irrit. 2 (H319)	-	-	-
Carbon black 1333-86-4	1 - 5	No data available	215-609-9 435-640-3	[C] [I]	-	-	-
Naphthalene 91-20-3	1 - 5	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)	-	-	-
Silicon dioxide 7631-86-9	0.5 - 1	01-211937949 9-16-XXXX	231-545-4	[C]	-	-	-
Silica, amorphous, fumed, crystal-free 112945-52-5	0.5 - 1	01-211937949 9-16-XXXX	No information available	[C]	-	-	-
1,2,4 Trimethylbenzene 95-63-6	0.1 - 0.5	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
Naphtha (petroleum), heavy aromatic 64742-94-5	5005	2002	0.5906	No data available	No data available
1-Butoxy-2-propanol 5131-66-8	1900	2002	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
Carbon black 1333-86-4	15415.4	No data available	0.0046	No data available	No data available
Naphthalene 91-20-3	1110	1120	0.4004	No data available	No data available
Silicon dioxide 7631-86-9	7900	5005	58.8588	No data available	No data available
Silica, amorphous, fumed, crystal-free 112945-52-5	3160	No data available	No data available	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 does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed pulmonary edema may occur.
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 for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person.

Get immediate medical attention.

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. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe vapour or mist. See section 8 for more information.

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

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. 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. 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 Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.

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. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapour or mist.

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 Prevent further leakage or spillage if safe to do so.

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. Take precautionary measures against static discharges. 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. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

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. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

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. Keep out of the reach of children. Store away from other materials.

Storage class (TRGS 510) LGK 10.

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
Talc 14807-96-6	-	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 1.0 fiber/cm ³ TWA: 6.0 mg/m ³ TWA: 3.0 mg/m ³	TWA: 1 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
Carbon black 1333-86-4	-	-	TWA: 3 mg/m ³	-	TWA: 3.5 mg/m ³ STEL: 7 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: 75.0 mg/m ³ TWA: 50.0 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³

			STEL: 80 mg/m ³ D*		
Silicon dioxide 7631-86-9	TWA: 0.1 mg/m ³	TWA: 4 mg/m ³	-	TWA: 0.1 mg/m ³	-
Silica, amorphous, fumed, crystal-free 112945-52-5	-	TWA: 4 mg/m ³	-	-	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ STEL 30 ppm STEL 150 mg/m ³	-	TWA: 20 ppm TWA: 100.0 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Talc 14807-96-6	-	TWA: 2.0 mg/m ³	TWA: 0.003 fiber/cm ³ STEL: 0.006 fiber/cm ³ with asbestos in the form of fibers	-	TWA: 0.5 fiber/cm ³ TWA: 2 mg/m ³ TWA: 1 mg/m ³
1-Butoxy-2-propanol 5131-66-8	-	TWA: 270 mg/m ³ Ceiling: 550 mg/m ³ D*	-	-	-
Carbon black 1333-86-4	-	TWA: 2.0 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 50 mg/m ³ Ceiling: 100 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 100 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 1 ppm TWA: 5 mg/m ³ STEL: 2 ppm STEL: 10 mg/m ³
Silicon dioxide 7631-86-9	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ TWA: 4.0 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³	TWA: 2 mg/m ³	TWA: 5 mg/m ³
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 100 mg/m ³ Ceiling: 250 mg/m ³ D*	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 40 ppm STEL: 200 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Talc 14807-96-6	-	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³	-	TWA: 10 mg/m ³ TWA: 2 mg/m ³	TWA: 2 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	-	-
Carbon black 1333-86-4	TWA: 3.5 mg/m ³	-	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 0.4 ppm TWA: 2 mg/m ³ H*	*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 50 mg/m ³ TWA: 10 ppm
Silicon dioxide 7631-86-9	-	TWA: 4 mg/m ³	TWA: 0.02 mg/m ³ Peak: 0.16 mg/m ³	TWA: 0.1 mg/m ³	-
Silica, amorphous, fumed, crystal-free 112945-52-5	-	-	TWA: 0.02 mg/m ³ Peak: 0.16 mg/m ³	-	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 50 ppm STEL: 250 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ Peak: 40 ppm Peak: 200 mg/m ³	TWA: 25 ppm TWA: 125 mg/m ³	TWA: 100 mg/m ³ TWA: 20 ppm
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Talc 14807-96-6	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³ STEL: 30 mg/m ³ STEL: 2.4 mg/m ³	-	TWA: 2 mg/m ³	-	TWA: 2 mg/m ³ TWA: 1 mg/m ³
Barium sulfate	TWA: 5 mg/m ³	-	TWA: 5 mg/m ³	-	-

7727-43-7	STEL: 15 mg/m ³				
Carbon black 1333-86-4	TWA: 3 mg/m ³ STEL: 15 mg/m ³	-	TWA: 3 mg/m ³	-	-
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 30 ppm STEL: 150 mg/m ³	-	TWA: 10 ppm TWA: 52 mg/m ³ cute*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³
Silicon dioxide 7631-86-9	TWA: 6 mg/m ³ TWA: 2.4 mg/m ³ STEL: 18 mg/m ³ STEL: 7.2 mg/m ³	TWA: 0.1 mg/m ³	-	TWA: 1 mg/m ³	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 60 ppm STEL: 300 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	-	TWA: 20 ppm TWA: 100 mg/m ³	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Talc 14807-96-6	-	-	TWA: 0.25 mg/m ³	TWA: 6 mg/m ³ TWA: 2 mg/m ³ STEL: 12 mg/m ³ STEL: 4 mg/m ³	TWA: 4 mg/m ³ TWA: 1 mg/m ³
Barium sulfate 7727-43-7	-	-	-	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	-
Carbon black 1333-86-4	-	-	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 4 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 16 ppm STEL: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 75 mg/m ³	STEL: 50 mg/m ³ TWA: 20 mg/m ³ skóra*
Silicon dioxide 7631-86-9	-	-	TWA: 0.075 mg/m ³	TWA: 1.5 mg/m ³ STEL: 3 mg/m ³	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 40 ppm STEL: 200 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 150 mg/m ³ STEL: 30 ppm	STEL: 170 mg/m ³ TWA: 100 mg/m ³ skóra*
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Talc 14807-96-6	TWA: 2 mg/m ³	TWA: 2 mg/m ³	-	-	TWA: 2 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
Carbon black 1333-86-4	TWA: 3 mg/m ³	-	TWA: 2 mg/m ³ TWA: 10 mg/m ³	-	TWA: 3.5 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm Cutânea*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ K* Ceiling: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 10 ppm STEL: 50 mg/m ³ K*	TWA: 10 ppm TWA: 53 mg/m ³ STEL: 15 ppm STEL: 80 mg/m ³ via dérmica*
Silicon dioxide 7631-86-9	TWA: 0.05 mg/m ³	-	-	TWA: 4 mg/m ³	-
1,2,4 Trimethylbenzene 95-63-6	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 40 ppm STEL: 200 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³
Chemical name	Sweden		Switzerland		United Kingdom
Talc 14807-96-6	NGV: 2 mg/m ³ NGV: 1 mg/m ³		TWA: 3 mg/m ³ TWA: 10 mg/m ³		TWA: 1 mg/m ³ STEL: 3 mg/m ³
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-(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*	-	-
Carbon black 1333-86-4	NGV: 3 mg/m ³	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³
Naphthalene 91-20-3	NGV: 10 ppm NGV: 50 mg/m ³ Vägledande KGV: 15 ppm Vägledande KGV: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ H*	-
Silicon dioxide 7631-86-9	-	TWA: 4 mg/m ³	TWA: 6 mg/m ³ TWA: 2.4 mg/m ³ STEL: 18 mg/m ³ STEL: 7.2 mg/m ³
1,2,4 Trimethylbenzene 95-63-6	NGV: 20 ppm NGV: 100 mg/m ³ Bindande KGV: 35 ppm Bindande KGV: 170 mg/m ³	-	-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Carbon black 1333-86-4	-	(-)	-	-	-
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
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	-	-	- urine (Total Dimethylbenzoic acids (after hydrolysis) in urine) - end of shift after several shifts	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
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Chemical name	Oral	Dermal	Inhalation
Talc 14807-96-6	-	43.2 mg/kg bw/day [4] [6] 4.54 mg/cm ² [5] [6]	2.16 mg/m ³ [4] [6] 2.16 mg/m ³ [4] [7] 3.6 mg/m ³ [5] [6] 3.6 mg/m ³ [5] [7]
Barium sulfate 7727-43-7	-	-	10 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
1-Butoxy-2-propanol 5131-66-8	-	52 mg/kg bw/day [4] [6] 50 % in mixture (weight basis) [5] [6] 50 % in mixture (weight basis) [5] [7]	147 mg/m ³ [4] [6]
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	-	1.48 mg/kg bw/day [4] [6]	10.45 mg/m ³ [4] [6]
Carbon black 1333-86-4	-	-	1 mg/m ³ [4] [6] 0.5 mg/m ³ [5] [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]
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
Talc 14807-96-6	160 mg/kg bw/day [4] [6] 160 mg/kg bw/day [4] [7]	2.27 mg/cm ² [5] [6]	1.08 mg/m ³ [4] [6] 1.08 mg/m ³ [4] [7] 1.8 mg/m ³ [5] [6] 1.8 mg/m ³ [5] [7]
Barium sulfate 7727-43-7	13000 mg/kg bw/day [4] [6]	-	10 mg/m ³ [4] [6]
1-Butoxy-2-propanol 5131-66-8	12.5 mg/kg bw/day [4] [6]	50 % in mixture (weight basis) [5] [6] 50 % in mixture (weight basis) [5] [7]	43 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]
Carbon black 1333-86-4	-	-	0.06 mg/m ³ [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
Talc 14807-96-6	597.97 mg/L	597.97 mg/L	141.26 mg/L	141.26 mg/L	10 mg/m ³
Barium sulfate 7727-43-7	115 µg/L	-	-	-	-
Naphtha (petroleum), heavy aromatic 64742-94-5	0.001 mg/L	-	0.001 mg/L	-	-
1-Butoxy-2-propanol 5131-66-8	0.525 mg/L	5.25 mg/L	0.0525 mg/L	-	-
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	0.11 mg/L	1.1 mg/L	0.01 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
Talc 14807-96-6	31.33 mg/kg sediment dw	3.13 mg/kg sediment dw	-	-	-
Barium sulfate 7727-43-7	600.4 mg/kg sediment dw	-	62.2 mg/L	207.7 mg/kg soil dw	-
1-Butoxy-2-propanol 5131-66-8	2.36 mg/kg sediment dw	0.236 mg/kg sediment dw	10 mg/L	0.16 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	-
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**

Tight sealing safety goggles. Eye protection must conform to standard EN 166.

Hand protection

Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374.

Skin and body protection

Wear suitable protective clothing. Long sleeved 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. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

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	Black
Odour	Strong solvent
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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	70 °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	1.46	
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 27 %

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 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 None known based on information supplied.

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. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).
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 skin irritation. (based on components). Repeated exposure may cause skin dryness or cracking. May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes.

Acute toxicity Harmful by inhalation.

Numerical measures of toxicity

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

ATEmix (oral) > 5,000.00 mg/kg

ATEmix (dermal) > 2,000.00 mg/kg

ATEmix (inhalation-dust/mist) 1.49 mg/l

Unknown acute toxicity

69.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Barium sulfate	= 307000 mg/kg (Rat)	-	-
Naphtha (petroleum), heavy aromatic	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
1-Butoxy-2-propanol	= 1900 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
2-(2-ethoxyethoxy)ethyl acetate	= 11 g/kg (Rat)	= 15100 mg/kg (Rabbit)	-
Carbon black	> 15400 mg/kg (Rat)	-	> 4.6 mg/m ³ (Rat) 4 h
Naphthalene	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h
Silicon dioxide	= 7900 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Silica, amorphous, fumed, crystal-free	= 3160 mg/kg (Rat)	-	-
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 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	Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

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

Chemical name	European Union
Naphthalene	Carc. 2

Reproductive toxicity	Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Target organ effects	Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system. Blood. Central Vascular System (CVS). Lymphatic System.
Aspiration hazard	May be fatal if swallowed and enters airways.

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 Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Talc 14807-96-6	-	LC50: >100g/L (96h, Brachydanio rerio)	-	-
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)
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: =31.0265mg/L (96h, Lepomis macrochirus)	-	LC50: =2.16mg/L (48h, Daphnia magna) EC50: =1.96mg/L (48h, Daphnia magna) EC50: 1.09 - 3.4mg/L (48h, Daphnia magna)
Silicon dioxide 7631-86-9	EC50: =440mg/L (72h, Pseudokirchneriella subcapitata)	LC50: =5000mg/L (96h, Brachydanio rerio)	-	EC50: =7600mg/L (48h, Ceriodaphnia dubia)
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
Naphtha (petroleum), heavy aromatic	6.5
1-Butoxy-2-propanol	1.2

2-(2-ethoxyethoxy)ethyl acetate	0.74
Naphthalene	3.4
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
Talc 14807-96-6	The substance is not PBT / vPvB
Barium sulfate 7727-43-7	The substance is not PBT / vPvB
Naphtha (petroleum), heavy aromatic 64742-94-5	The substance is not PBT / vPvB
1-Butoxy-2-propanol 5131-66-8	The substance is not PBT / vPvB
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	The substance is not PBT / vPvB
Carbon black 1333-86-4	The substance is not PBT / vPvB
Naphthalene 91-20-3	The substance is not PBT / vPvB
Silicon dioxide 7631-86-9	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**

14.1 UN number or ID number UN3082

14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene), 9, III, Marine pollutant
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 969
EmS-No.	F-A, S-F
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene), 9, III
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 375, 601
Classification code	M6

ADR

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphtha (petroleum), heavy aromatic, Naphthalene), 9, III
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 601, 375
Classification code	M6

IATA

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic, Naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, Environmentally hazardous substances, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic, Naphthalene), 9, III
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	A97, A158, A197
ERG Code	9L
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
Talc 14807-96-6	RG 25
Naphtha (petroleum), heavy aromatic 64742-94-5	RG 84
1-Butoxy-2-propanol 5131-66-8	RG 84
2-(2-ethoxyethoxy)ethyl acetate 112-15-2	RG 84
Carbon black 1333-86-4	RG 16, RG 16bis
Silicon dioxide 7631-86-9	RG 25
1,2,4 Trimethylbenzene 95-63-6	RG 84

Germany

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

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-Butoxy-2-propanol - 5131-66-8	75.	-
Carbon black - 1333-86-4	75.	-
Naphthalene - 91-20-3	75.	-
1,2,4 Trimethylbenzene - 95-63-6	75.	-

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

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 - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Talc - 14807-96-6	Plant protection agent
Carbon black - 1333-86-4	Plant protection agent

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

Chemical name	EU - Water Framework Directive (2000/60/EC)
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Naphthalene - 91-20-3	Priority substance
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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
 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) 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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Revision Note Updated format. Change in the mixture classification.

This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information 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