

Revision date 24/10/2023

Revision Number 1.03

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product Name Acrylic Protective Lacquer
Product Code(s) APL-b, EAPL15ML, EAPL05L, ZE
Safety data sheet number 00835
Unique Formula Identifier (UFI) WP92-Y00Y-M003-DN7T
Pure substance/mixture Mixture

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

Recommended use Appliance protection.
Uses advised against No specific uses advised against are identified

1.3. Details of the supplier of the safety data sheet

<u>Manufacturer</u>	<u>Supplier</u>
ELECTROLUBE MacDermid Alpha Electronics Solutions ASHBY PARK, COALFIELD WAY, ASHBY DE LA ZOUCH, LEICESTERSHIRE LE65 1JR UNITED KINGDOM	HK WENTWORTH LIMITED 32 RUE DE TOURNENFILS 91540 MENNECY FRANCE
+44 (0)1530 419600 +44 (0)1530 416640 info@electrolube.com	+33 (0) 1 82 88 47 94 info@electrolube.com

For further information, please contact

E-mail address info@electrolube.com

1.4. Emergency telephone number

Emergency Telephone POISON INFORMATION CENTRE (Beaumont Hospital, Republic of Ireland only) +353 (0)1 809 2166 (08:00 - 22:00)

Emergency Telephone - IN CASE OF EMERGENCY CALL: +44 1865 407333 (24hr, Provided by Carechem 24)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to

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

Flammable liquids	Category 2 - (H225)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitisation	Category 1 - (H317)
Reproductive toxicity	Category 2 - (H361d)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Specific target organ toxicity — repeated exposure	Category 2 - (H373)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Toluene, butanone, 2-octyl-2H-isothiazol-3-one



Signal word

Danger

Hazard statements

H225 - Highly flammable liquid and vapour

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

H361d - Suspected of damaging 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)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 - Do not breathe vapours/spray.

P273 - Avoid release to the environment.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P403 + P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

2.3. Other hazards

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)
Toluene 108-88-3	30-60	01-2119471310-51-00 00	203-625-9	Asp. Tox. 1 (H304) STOT RE 2 (H373) Repr. 2 (H361d) Skin Irrit. 2 (H315) STOT SE 3 (H336) Flam. Liq. 2 (H225)	-	-	-
butanone 78-93-3	10-30	01-2119457290-43-00 00	201-159-0	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	-	-	-
Amorphous Silica 7631-86-9	1-5	17-2119421532-51-00 00	231-545-4	-	-	-	-
2-octyl-2H-isothiazol-3-one 26530-20-1	<0.1	No data available	247-761-7	Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1 (H314) Acute Tox. 3 (H301) Eye Dam. 1 (H318)	Skin Sens. 1A :: C>=0.0015%	100	100

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
Toluene 108-88-3	2600	12000	12.5	No data available	No data available
butanone 78-93-3	2483	5000	No data available	34.5018	No data available
Amorphous Silica 7631-86-9	7900	5000	58.8	No data available	No data available
2-octyl-2H-isothiazol-3-one 26530-20-1	125 + 550	311 + 690	0.27 +	No data available	No data available

+ This value is the harmonised acute toxicity estimate (ATE) listed in CLP Annex VI, Part 3. This harmonised ATE value must be used when calculating the acute toxicity estimate (ATEmix) for classifying a mixture containing the listed substance

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	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. 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. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. 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. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. 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. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

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

Symptoms	Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Effects of Exposure	No information available.

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

Note to doctors	May cause sensitisation in susceptible persons. Treat symptomatically. 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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire
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extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitiser. May cause sensitisation by skin contact.

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.
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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. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. 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	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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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. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers 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.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes.
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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. Do not store near combustible materials. Keep in an area equipped with sprinklers. 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)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Toluene 108-88-3	TWA: 50 ppm TWA: 192 mg/m ³ *	TWA: 50 ppm TWA: 190 mg/m ³ STEL 100 ppm STEL 380 mg/m ³ H*	TWA: 20 ppm TWA: 77 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ D*	STEL: 100 ppm STEL: 384.0 mg/m ³ TWA: 50 ppm TWA: 192.0 mg/m ³ K*	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ *
butanone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 100 ppm TWA: 295 mg/m ³ STEL 200 ppm STEL 590 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	STEL: 885 mg/m ³ TWA: 590 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³
Amorphous Silica 7631-86-9	TWA: 0.1 mg/m ³	TWA: 4 mg/m ³	TWA: 3 mg/m ³ TWA: 10 mg/m ³	TWA: 1.0 mg/m ³ TWA: 0.1 mg/m ³	TWA: 1.2 mg/m ³
2-octyl-2H-isothiazol-3-one 26530-20-1	-	TWA: 0.05 mg/m ³ STEL 0.05 mg/m ³ Ceiling: 0.05 mg/m ³ H* S+	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Toluene 108-88-3	* STEL: 100 ppm STEL: 384 mg/m ³ TWA: 50 ppm TWA: 192 mg/m ³	TWA: 200 mg/m ³ Ceiling: 500 mg/m ³ D*	TWA: 25 ppm TWA: 94 mg/m ³ H* STEL: 384 mg/m ³ STEL: 100 ppm	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ A*	TWA: 25 ppm TWA: 81 mg/m ³ STEL: 100 ppm STEL: 380 mg/m ³ iho*
butanone 78-93-3	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	TWA: 600 mg/m ³ Ceiling: 900 mg/m ³	TWA: 50 ppm TWA: 145 mg/m ³ H* STEL: 900 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 20 ppm TWA: 60 mg/m ³ STEL: 100 ppm STEL: 300 mg/m ³

Amorphous Silica 7631-86-9	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ TWA: 4.0 mg/m ³	STEL: 300 ppm TWA: 1.5 mg/m ³ STEL: 3 mg/m ³ uncalcinated with no content of Quartz	TWA: 2 mg/m ³	ih ^o *
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Toluene 108-88-3	TWA: 20 ppm TWA: 76.8 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ *	TWA: 50 ppm TWA: 190 mg/m ³ H*	TWA: 50 ppm TWA: 190 mg/m ³ Peak: 100 ppm Peak: 380 mg/m ³ *	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ *	TWA: 190 mg/m ³ TWA: 50 ppm STEL: 384 mg/m ³ STEL: 100 ppm b*
butanone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ *	TWA: 200 ppm TWA: 600 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ Peak: 200 ppm Peak: 600 mg/m ³ *	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 600 mg/m ³ TWA: 200 ppm STEL: 900 mg/m ³ STEL: 300 ppm b*
Amorphous Silica 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	-
2-octyl-2H-isothiazol-3-one 26530-20-1	-	TWA: 0.05 mg/m ³ H*	TWA: 0.05 mg/m ³ Peak: 0.1 mg/m ³ * skin sensitizer	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Toluene 108-88-3	TWA: 192 mg/m ³ TWA: 50 ppm STEL: 384 mg/m ³ STEL: 100 ppm Sk*	TWA: 50 ppm TWA: 192 mg/m ³ cute*	TWA: 20 ppm TWA: 75.4 mg/m ³	TWA: 14 ppm TWA: 50 mg/m ³ STEL: 40 ppm STEL: 150 mg/m ³ Ada*	STEL: 100 ppm STEL: 384 mg/m ³ TWA: 50 ppm TWA: 192 mg/m ³ O*
butanone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ Sk*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³	TWA: 67 ppm TWA: 200 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	-
Amorphous Silica 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	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Toluene 108-88-3	STEL: 100 ppm STEL: 384 mg/m ³ TWA: 50 ppm TWA: 192 mg/m ³ Peau*	STEL: 100 ppm STEL: 384 mg/m ³ skin* TWA: 50 ppm TWA: 192 mg/m ³	TWA: 39 ppm TWA: 150 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³	TWA: 25 ppm TWA: 94 mg/m ³ STEL: 37.5 ppm STEL: 141 mg/m ³ H*	STEL: 200 mg/m ³ TWA: 100 mg/m ³ skóra*
butanone 78-93-3	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	TWA: 197 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ H*	TWA: 75 ppm TWA: 220 mg/m ³ STEL: 112.5 ppm STEL: 275 mg/m ³	STEL: 900 mg/m ³ TWA: 450 mg/m ³ skóra*
Amorphous Silica 7631-86-9	-	-	TWA: 0.075 mg/m ³	TWA: 1.5 mg/m ³ STEL: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 2 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Toluene 108-88-3	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ Cutânea*	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ P*	TWA: 50 ppm TWA: 192 mg/m ³ K* Ceiling: 384 mg/m ³	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ K*	TWA: 50 ppm TWA: 192 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ via dérmica*
butanone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³

	STEL: 300 ppm STEL: 900 mg/m ³	STEL: 300 ppm STEL: 900 mg/m ³	Ceiling: 900 mg/m ³	STEL: 300 ppm STEL: 900 mg/m ³ K*	STEL: 300 ppm STEL: 900 mg/m ³
Amorphous Silica 7631-86-9	TWA: 0.05 mg/m ³ TWA: 0.1 mg/m ³	-	-	TWA: 4 mg/m ³	-
2-octyl-2H-isothiazol-3-one 26530-20-1	-	-	-	TWA: 0.05 mg/m ³ STEL: 0.1 mg/m ³ K*	-
Chemical name	Sweden		Switzerland		United Kingdom
Toluene 108-88-3	Bindande KGV: 100 ppm Bindande KGV: 384 mg/m ³ NGV: 50 ppm NGV: 192 mg/m ³ H*		TWA: 50 ppm TWA: 190 mg/m ³ STEL: 200 ppm STEL: 760 mg/m ³ H*		TWA: 50 ppm TWA: 191 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ Sk*
butanone 78-93-3	Bindande KGV: 300 ppm Bindande KGV: 900 mg/m ³ NGV: 50 ppm NGV: 150 mg/m ³		TWA: 200 ppm TWA: 590 mg/m ³ STEL: 200 ppm STEL: 590 mg/m ³ H*		TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 899 mg/m ³ Sk*
Amorphous Silica 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
2-octyl-2H-isothiazol-3-one 26530-20-1	-		S+ TWA: 0.05 mg/m ³ STEL: 0.1 mg/m ³ H*		-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Toluene 108-88-3	-	10 g/dL Hemoglobin (blood - by the first screening and once yearly) 12 g/dL Hemoglobin (blood - by the first screening and once yearly) 3.2 million/ μ L Erythrocytes (blood - by the first screening and once yearly) 3.8 million/ μ L Erythrocytes (blood - by the first screening and once yearly) 4000 Leukocytes/ μ L (blood - by the first screening and once yearly) 13000 Leukocytes/ μ L (blood - by the first screening and once yearly) 130000	1.6 mmol/mmol Creatinine - urine (Hippuric acid) - at the end of exposure or end of work shift	1.0 mg/L - blood (Toluene) - at the end of the work shift 20 ppm - final exhaled air (Toluene) - during exposure 2.50 g/g Creatinine - urine (Hippuric acid) - at the end of the work shift 1.0 mg/g Creatinine - urine (o-Cresol) - at the end of the work shift	1.6 μ mol/mmol Creatinine (urine - o-Cresol end of shift) 1000 μ mol/mmol Creatinine (urine - Hippuric acid end of shift) 1.5 mg/g Creatinine (urine - o-Cresol end of shift) 1600 mg/g Creatinine (urine - Hippuric acid end of shift)

		Thrombocytes/ μ L (blood - by the first screening and once yearly) 150000 Thrombocytes/ μ L (blood - by the first screening and once yearly) 0.8 mg/L (urine - o-Cresol after end of work day, at the end of a work week/end of the shift)			
butanone 78-93-3	-	-	-	2.6 mg/g Creatinine - urine (Ethyl methyl ketone) - at the end of the work shift	-
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Toluene 108-88-3	-	500 nmol/L (blood - Toluene in the morning after a working day)	1 mg/L - venous blood (Toluene) - end of shift 2500 mg/g creatinine - urine (Hippuric acid) - end of shift	600 μ g/L (whole blood - Toluene immediately after exposure) 75 μ g/L (urine - Toluene end of shift) 1.5 mg/L (urine - o-Cresol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 1.5 mg/L (urine - o-Cresol (after hydrolysis) end of shift) 600 μ g/L - BAT (immediately after exposure) blood 75 μ g/L - BAT (end of exposure or end of shift) urine 1.5 mg/L - BAT (for long-term exposures: at the end of the shift after several shifts) urine 1.5 mg/L - BAT (end of exposure or end of shift) urine	600 μ g/L (whole blood - Toluene immediately after exposure) 75 μ g/L (urine - Toluene end of shift) 1.5 mg/L (urine - o-Cresol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 1.5 mg/L (urine - o-Cresol (after hydrolysis) end of shift)
butanone 78-93-3	-	-	2 mg/L - urine (Methylethylketone) - end of shift	2 mg/L (urine - 2-Butanone end of shift) 2 mg/L - BAT (end of exposure or end of shift) urine	2 mg/L (urine - 2-Butanone end of shift)
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
Toluene 108-88-3	1 mg/g Creatinine (urine - o-Cresol end of shift)	0.02 mg/L (blood - Toluene prior to last shift)	-	0.3 mg/g Creatinine - urine (o-Cresol (with	

	1 µmol/mmol Creatinine (urine - o-Cresol end of shift)	of workweek) 0.03 mg/L (urine - Toluene end of shift) 0.3 mg/g Creatinine (urine - o-Cresol end of shift)		hydrolysis)) - end of shift 0.03 mg/L - urine (Toluene) - end of shift 0.02 mg/L - blood (Toluene) - prior to last shift of workweek
butanone 78-93-3	-	70 µmol/L (urine - Butan-2-one post shift)	-	2 mg/L - urine (MEK) - end of shift
Chemical name	Latvia	Luxembourg	Romania	Slovakia
Toluene 108-88-3	1.6 g/g Creatinine - urine (Hippuric acid) - end of shift 0.05 mg/L - blood (Toluene) - end of shift	-	2 g/L - urine (Hippuric acid) - end of shift 3 mg/L - urine (o-Cresol) - end of shift	600 µg/L (blood - Toluene end of exposure or work shift) 1.5 mg/L (urine - o-Cresol after all work shifts) 1.5 mg/L (urine - o-Cresol end of exposure or work shift) 1600 mg/g creatinine (- Hippuric acid end of exposure or work shift)
butanone 78-93-3	-	-	2 mg/L - urine (Methylethylketone) - end of shift	-
Chemical name	Slovenia	Spain	Switzerland	United Kingdom
Toluene 108-88-3	600 µg/L - blood (Toluene) - immediately after exposure 1.5 mg/L - urine (o-Cresol (after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays 75 µg/L - urine (Toluene) - at the end of the work shift	0.6 mg/L (urine - o-Cresol end of shift) 0.05 mg/L (blood - Toluene start of last shift of workweek) 0.08 mg/L (urine - Toluene end of shift)	600 µg/L (whole blood - Toluene end of shift) 6.48 µmol/L (whole blood - Toluene end of shift) 2 g/g creatinine (urine - Hippuric acid end of shift, and after several shifts (for long-term exposures)) 1.26 mmol/mmol creatinine (urine - Hippuric acid end of shift, and after several shifts (for long-term exposures)) 0.5 mg/L (urine - o-Cresol end of shift, and after several shifts (for long-term exposures)) 4.62 µmol/L (urine - o-Cresol end of shift, and after several shifts (for long-term exposures)) 75 µg/L (urine - Toluol end of shift)	-
butanone 78-93-3	2 mg/L - urine (2-Butanone) - at the end of the work shift	2 mg/L (urine - Methyl ethyl ketone end of shift)	2 mg/L (urine - 2-Butanone end of shift, before subsequent shift or 16 hour) 27.7 µmol/L (urine - 2-Butanone end of shift, before subsequent shift or 16 hour)	70 µmol/L - urine (Butan-2-one) - post shift

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Toluene 108-88-3	-	384 mg/kg bw/day [4] [6]	192 mg/m ³ [4] [6] 384 mg/m ³ [4] [7] 192 mg/m ³ [5] [6] 384 mg/m ³ [5] [7]
butanone 78-93-3	-	1161 mg/kg bw/day [4] [6]	600 mg/m ³ [4] [6]
2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole) 7128-64-5	-	7.1 mg/kg bw/day [4] [6]	3 mg/m ³ [4] [6] 3 mg/m ³ [5] [6]

[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
Toluene 108-88-3	8.13 mg/kg bw/day [4] [6]	-	56.5 mg/m ³ [4] [6] 226 mg/m ³ [4] [7] 56.5 mg/m ³ [5] [6] 226 mg/m ³ [5] [7]
butanone 78-93-3	31 mg/kg bw/day [4] [6]	-	106 mg/m ³ [4] [6]
2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole) 7128-64-5	3.5 mg/kg bw/day [4] [6]	-	-

[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
Toluene 108-88-3	0.68 mg/L	0.68 mg/L	0.68 mg/L	-	-
butanone 78-93-3	55.8 mg/L	55.8 mg/L	55.8 mg/L	-	-
2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole) 7128-64-5	0.2 mg/L	-	0.02 mg/L	-	-
2-octyl-2H-isothiazol-3-one 26530-20-1	2.2 µg/L	1.22 µg/L	0.22 µg/L	0.122 µg/L	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Toluene	16.39 mg/kg	16.39 mg/kg	13.61 mg/L	2.89 mg/kg soil dw	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
108-88-3	sediment dw	sediment dw			
butanone 78-93-3	284.74 mg/kg sediment dw	284.7 mg/kg sediment dw	709 mg/L	22.5 mg/kg soil dw	1000 mg/kg food
2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole) 7128-64-5	-	316000 mg/kg sediment dw	1 mg/L	629000 mg/kg soil dw	-
2-octyl-2H-isothiazol-3-one 26530-20-1	47.5 µg/kg sediment dw	4.75 µg/kg sediment dw	-	8.2 µg/kg soil dw	-

8.2. Exposure controls

Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
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	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	clear light blue
Odour	Organic solvents.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	-7 °C	Closed cup
Autoignition temperature	No data available	None known

Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	329.7 384.6 mm ² /s	None known
Dynamic viscosity	300-350 mPa s @ 20°C	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	0.91 kg/l	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidizing.

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No information available.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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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.
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10.4. Conditions to avoid

Conditions to avoid	Heat, flames and sparks.
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10.5. Incompatible materials

Incompatible materials	Strong acids. Strong bases. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	None known based on information supplied.
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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. May cause drowsiness or dizziness.
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Repeated exposure may cause skin dryness or cracking. Causes skin irritation.
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	Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	6,218.70 mg/kg
ATEmix (dermal)	12,198.80 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapour)	99,999.000 mg/l
ATEmix (inhalation-dust/mist)	3,804.0047 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
butanone	= 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
Amorphous Silica	= 7900 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 58.8 mg/L (Rat) 4 h
2-octyl-2H-isothiazol-3-one	= 550 mg/kg (Rat)	= 690 mg/kg (Rabbit)	-

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.
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Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging 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
Toluene	Repr. 2

STOT - single exposure	May cause drowsiness or dizziness.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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11.2.2. Other information

Other adverse effects	No information available.
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SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
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Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Toluene	EC50: >433mg/L (96h, Pseudokirchneriella subcapitata) EC50: =12.5mg/L (72h, Pseudokirchneriella subcapitata)	LC50: 15.22 - 19.05mg/L (96h, Pimephales promelas) LC50: =12.6mg/L (96h, Pimephales promelas) LC50: 5.89 - 7.81mg/L (96h, Oncorhynchus mykiss)	-	EC50: 5.46 - 9.83mg/L (48h, Daphnia magna) EC50: =11.5mg/L (48h, Daphnia magna)

		LC50: 14.1 - 17.16mg/L (96h, Oncorhynchus mykiss) LC50: =5.8mg/L (96h, Oncorhynchus mykiss) LC50: 11.0 - 15.0mg/L (96h, Lepomis macrochirus) LC50: =54mg/L (96h, Oryzias latipes) LC50: =28.2mg/L (96h, Poecilia reticulata) LC50: 50.87 - 70.34mg/L (96h, Poecilia reticulata)		
butanone	-	LC50: 3130 - 3320mg/L (96h, Pimephales promelas)	-	EC50: >520mg/L (48h, Daphnia magna) EC50: =5091mg/L (48h, Daphnia magna) EC50: 4025 - 6440mg/L (48h, Daphnia magna)
Amorphous Silica	EC50: =440mg/L (72h, Pseudokirchneriella subcapitata)	LC50: =5000mg/L (96h, Brachydanio rerio)	-	EC50: =7600mg/L (48h, Ceriodaphnia dubia)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Toluene	2.73
butanone	0.3

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 above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Toluene	The substance is not PBT / vPvB
butanone	The substance is not PBT / vPvB
Amorphous Silica	The substance is not PBT / vPvB
2-octyl-2H-isothiazol-3-one	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	UN1263
14.2 UN proper shipping name	PAINT (CONTAINS 2-octyl-2H-isothiazol-3-one)
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1263, Paint, 3, II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	A3, A72, A192
ERG Code	3L

IMDG

14.1 UN number or ID number	UN1263
14.2 UN proper shipping name	PAINT (CONTAINS 2-octyl-2H-isothiazol-3-one)
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1263, Paint, 3, II, (-7°C c.c.), Marine pollutant
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	163, 367
EmS-No	F-E, S-E
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1263
14.2 UN proper shipping name	PAINT (CONTAINS 2-octyl-2H-isothiazol-3-one)
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1263, Paint, 3, II, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	163, 367, 640C, 650
Classification code	F1

ADR

14.1 UN number or ID number	UN1263
14.2 UN proper shipping name	PAINT (CONTAINS 2-octyl-2H-isothiazol-3-one)
14.3 Transport hazard class(es)	3

14.4 Packing group	II
Description	UN1263, Paint, 3, II, (D/E), Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	163, 640C, 650, 367
Classification code	F1
Tunnel restriction code	(D/E)

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
Toluene - 108-88-3	RG 4bis, RG 84
butanone - 78-93-3	RG 84
Amorphous Silica - 7631-86-9	RG 25

Germany

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

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Toluene	-	-	Development Category 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
Toluene - 108-88-3	Use restricted. See item 48. Use restricted. See item 75.	-
butanone - 78-93-3	Use restricted. See item 75.	-
2-octyl-2H-isothiazol-3-one - 26530-20-1	Use restricted. See item 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

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

Not applicable

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Amorphous Silica - 7631-86-9	Plant protection agent

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

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Amorphous Silica - 7631-86-9	Product-type 18: Insecticides, acaricides and products to control other arthropods
2-octyl-2H-isothiazol-3-one - 26530-20-1	Product-type 8: Wood preservatives Product-type 6: Preservatives for products during storage Product-type 7: Film preservatives Product-type 9: Fibre, leather, rubber and polymerised materials preservatives Product-type 10: Construction material preservatives Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 13: Working or cutting fluid preservatives

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report	No information available
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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

H225	- Highly flammable liquid and vapour
H301	- Toxic if swallowed
H304	- May be fatal if swallowed and enters airways
H311	- Toxic in contact with skin
H314	- Causes severe skin burns and eye damage
H315	- Causes skin irritation

H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H336 - May cause drowsiness or dizziness
H361d - Suspected of damaging 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

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation
+ Sensitisers

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
Flammable liquids	On basis of test data

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)
National Institute of Technology and Evaluation (NITE)
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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Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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