SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

chemius.net/dLU2c

Product name

2115 Epoxy thinner

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

Relevant identified uses

Thinner.

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Manufacturer

SILCO, D.O.O.
Address: Šentrupert 5 a, 3303 Gomilsko, Slovenia
Phone: +386 3 703 3180
Fax: +386 3 703 3188
E-mail: n.cvilak@silco-automotive.com
Point of contact for safety info: Nejc Cvilak

1.4. Emergency telephone number

Emergency

112

Supplier

+386 3 703 3180

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Flam. Liq. 2; H225 Highly flammable liquid and vapour.
Acute Tox. 4; H302 Harmful if swallowed.
Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
Skin Irrit. 2; H315 Causes skin irritation.
Eye Irrit. 2; H319 Causes serious eye irritation.
STOT SE 3; H336 May cause drowsiness or dizziness.
Repr. 2; H361d Suspected of damaging the unborn child.
STOT SE 2; H371 May cause damage to organs.
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

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

Signal word: **Danger**

H225 Highly 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.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use carbon dioxide, water spray, foam or dry chemical powder for extinction.

2.2.2. Contains:

toluene (CAS: 108-88-3, EC: 203-625-9, Index: 601-021-00-3)
acetone (CAS: 67-64-1, EC: 200-662-2, Index: 606-001-00-8)
methyl acetate (CAS: 79-20-9, EC: 201-185-2, Index: 607-021-00-X)
methanol (CAS: 67-56-1, EC: 200-659-6, Index: 603-001-00-X)

2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

The substances in the mixture are not classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

For mixtures see 3.2.

3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
toluene	108-88-3 203-625-9 601-021-00-3	30-<50	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361d STOT RE 2; H373		01-2119471310-51
acetone	67-64-1 200-662-2 606-001-00-8	30-<50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066		01-2119471330-49
methyl acetate	79-20-9 201-185-2 607-021-00-X	15-<20	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066		01-2119459211-47
methanol	67-56-1 200-659-6 603-001-00-X	5-<10	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 STOT SE 1; H370	STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	01-2119433307-44
reaction mass of ethylbenzene and m-xylene and p-xylene	- 905-562-9 -	0-<0,5	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373		01-2119555267-33
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0	0-<0,5	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332		01-2119475108-36
ethyl methyl ketone	78-93-3 201-159-0 606-002-00-3	0-<0,5	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066		01-2119457290-43
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7	0-<0,5	Flam. Liq. 3; H226		01-2119475791-29

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If victim is not breathing give artificial respiration. If symptoms develop and persist, seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. In the event of breathing difficulties, get medical advice/attention immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If symptoms persist seek medical attention. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. After initial flushing, remove any contact lenses and continue flushing. If irritation does not stop, seek professional medical treatment!

Following ingestion

Rinse mouth thoroughly with water. Do not induce vomiting! If vomiting occurs, the patient should hold the head lower than the hips, because it reduces the possibility of aspiration. Immediately consult a doctor. Show the physician the safety data sheet or label.

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

Inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.
Coughing, sneezing, nasal discharge, labored breathing.

Skin contact

Itching, redness, pain.

Eye contact

Redness, tearing, pain.

Ingestion

Harmful to health.
Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.
Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.
Causes nausea/vomiting and diarrhoea.

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

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SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO_2).
Foam.
Fire extinguishing powder. For leakage and spillage that have not caught fire, nebulized water may be used to disperse the flammable vapours and protect the people involved in stopping the leakage.

Unsuitable extinguishing media

Full water jet. In general water is not recommended, since it can be ineffective; But it may be used to cool containers exposed to the fire or to distribute vapors.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of heating harmful vapours/gases can be generated.

5.3. Advice for firefighters

Protective actions

In case of fire do not breathe fumes/gases. Prolonged heating can cause an explosion. Cool containers at risk with water spray. If possible remove containers from endangered area. Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment for firefighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system. Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking! Evacuate the danger zone. Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Avoid contact with skin and eyes. Do not breathe vapour or mist.

6.1.2. For emergency responders

During intervention, use personal protective equipment (Section 8).

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems and ground water. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Stem the spill if this does not pose risks.

6.3.2. For cleaning up

Make sure the leakage site is well aired. Remove sources of ignition like fire, cigarettes and electric sparks. Use spark-proof tools. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Do not absorb spillage with sawdust or other combustible material. In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations. Evaluate the compatibility of the container to be used, by checking section 10. Dispose in accordance with applicable regulations (see Section 13).

6.3.3. Other information

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6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation. Protect from open fire and other sources of ignition or heat. Keep away from sources of ignition - no smoking. Take precautionary measures against static discharges. Use spark-proof tools. Vapours may be ignited and an explosion may occur, it is therefore necessary to prevent their accumulation by keeping the windows and doors open and ensuring good ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Only use grounded containers and equipment when transporting / transferring - possible danger of accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling.

Measures to prevent aerosol and dust generation

Ensure good ventilation and extraction. Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Avoid contact with skin and eyes. Do not breathe vapours/mist. Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Store in accordance with local regulations. Keep in a cool, dry and well ventilated place. Keep in tightly closed container. Keep away from incompatible products (see section 10). Protect from open fire, heat and direct sunlight. All electrical equipment in the storage areas should be compatible with the risk of a potentially explosive atmosphere. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

7.2.2. Packaging materials

Store only in original container.

7.2.3. Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers. The floor of the storage room must be impermeable and dam spilled liquid.

7.2.4. Storage class

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7.2.5. Further information on storage conditions

-

7.3. Specific end use(s)

Recommendations

-

Industrial sector specific solutions

-

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m³ (ppm)	mg/m³	ml/m³ (ppm)	mg/m³		
Acetone (67-64-1)	500	1210	1500	3620		
Butan-2-one (methyl ethyl ketone) (78-93-3)	200	600	300	899	Sk, BMGV	70 µmol butan-2-one/L in urine - Post shift
2-Butoxyethanol (111-76-2)	25	123	50	246	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift
Methanol (67-56-1)	200	266	250	333	Sk	
1-Methoxypropyl acetate (108-65-6)	50	274	100	548	Sk	
Methyl acetate (79-20-9)	200	616	250	770		
Toluene (108-88-3)	50	191	100	384	Sk	

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

8.1.3. DNEL/DMEL values

For components

Name	Type	Exposure route	Exposure frequency	Value	Remark
toluene (108-88-3)	Worker	inhalation	short term (systemic effects)	384 mg/m³	
toluene (108-88-3)	Worker	inhalation	long term (systemic effects)	192 mg/m³	
toluene (108-88-3)	Worker	dermal	long term (systemic effects)	384 mg/kg	
toluene (108-88-3)	Consumer	inhalation	short term (systemic effects)	226 mg/m³	
toluene (108-88-3)	Consumer	inhalation	long term (systemic effects)	56,5 mg/m³	
toluene (108-88-3)	Consumer	dermal	long term (systemic effects)	226 mg/kg	
toluene (108-88-3)	Consumer	oral	long term (systemic effects)	8,13 mg/kg bw/day	
acetone (67-64-1)	Worker	inhalation	short term (systemic effects)	1210 mg/m³	
acetone (67-64-1)	Worker	dermal	long term (systemic effects)	186 mg/kg bw/day	
acetone (67-64-1)	Consumer	oral	long term (systemic effects)	62 mg/kg bw/day	
acetone (67-64-1)	Consumer	inhalation	long term (systemic effects)	200 mg/m³	
acetone (67-64-1)	Consumer	inhalation	short term (local effects)	2420 mg/m³	
acetone (67-64-1)	Consumer	dermal	long term (systemic effects)	62 mg/kg bw/day	
methyl acetate (79-20-9)	Worker	inhalation	long term (systemic effects)	610 mg/m³	
methyl acetate (79-20-9)	Worker	inhalation	long term (local effects)	305 mg/m³	
methyl acetate (79-20-9)	Worker	dermal	long term (systemic effects)	88 mg/kg bw/day	
methyl acetate (79-20-9)	Consumer	inhalation	long term (systemic effects)	131 mg/m³	
methyl acetate (79-20-9)	Consumer	inhalation	long term (local effects)	152 mg/m³	
methyl acetate (79-20-9)	Consumer	dermal	long term (systemic effects)	44 mg/kg bw/day	
methyl acetate (79-20-9)	Consumer	oral	long term (systemic effects)	44 mg/kg bw/day	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Worker	inhalation	long term (systemic effects)	221 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Worker	inhalation	short term (systemic effects)	442 mg/m³	

reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Worker	inhalation	long term (local effects)	221 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Worker	inhalation	short term (local effects)	442 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Worker	dermal	long term (systemic effects)	212 mg/kg bw/day	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	inhalation	long term (systemic effects)	65,3 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	inhalation	short term (systemic effects)	260 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	inhalation	long term (local effects)	65,3 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	inhalation	short term (local effects)	260 mg/m³	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	dermal	long term (systemic effects)	125 mg/kg bw/day	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Consumer	oral	long term (systemic effects)	12,5 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Worker	inhalation	long term (systemic effects)	98 mg/m³	
2-butoxyethanol (111-76-2)	Worker	inhalation	short term (systemic effects)	1091 mg/m³	
2-butoxyethanol (111-76-2)	Worker	dermal	long term (systemic effects)	125 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Worker	dermal	short term (systemic effects)	89 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Consumer	inhalation	long term (systemic effects)	59 mg/m³	
2-butoxyethanol (111-76-2)	Consumer	inhalation	short term (systemic effects)	426 mg/m³	
2-butoxyethanol (111-76-2)	Consumer	dermal	long term (systemic effects)	75 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Consumer	dermal	short term (systemic effects)	89 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Consumer	oral	long term (systemic effects)	6,3 mg/kg bw/day	
2-butoxyethanol (111-76-2)	Consumer	oral	short term (systemic effects)	26,7 mg/kg bw/day	
ethyl methyl ketone (78-93-3)	Worker	dermal	long term (systemic effects)	1161 mg/kg bw/day	
ethyl methyl ketone (78-93-3)	Worker	inhalation	long term (systemic effects)	600 mg/m³	
ethyl methyl ketone (78-93-3)	Consumer	oral	long term (systemic effects)	31 mg/kg bw/day	
ethyl methyl ketone (78-93-3)	Consumer	dermal	long term (systemic effects)	412 mg/kg bw/day	
ethyl methyl ketone (78-93-3)	Consumer	inhalation	long term (systemic effects)	106 mg/m³	
2-methoxy-1-methylethyl acetate (108-65-6)	Worker	inhalation	long term (systemic effects)	275 mg/m³	
2-methoxy-1-methylethyl acetate (108-65-6)	Worker	inhalation	long term (local effects)	550 mg/m³	
2-methoxy-1-methylethyl acetate (108-65-6)	Worker	dermal	long term (systemic effects)	796 mg/kg bw/day	

2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	inhalation	long term (systemic effects)	33 mg/m³	
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	inhalation	long term (local effects)	33 mg/m³	
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	dermal	long term (systemic effects)	320 mg/kg bw/day	
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	oral	long term (systemic effects)	36 mg/kg bw/day	
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	oral	short term (systemic effects)	500 mg/kg bw/day	

8.1.4. PNEC values

For components

Name	Exposure route	Value	Remark
toluene (108-88-3)	fresh water	0,68 mg/L	
toluene (108-88-3)	fresh water sediment	16,39 mg/kg	dry weight
toluene (108-88-3)	soil	2,89 mg/kg	dry weight
toluene (108-88-3)	water treatment plant	13,61 mg/L	
toluene (108-88-3)	marine water	0,68 mg/L	
toluene (108-88-3)	marine water sediment	16,39 mg/kg	dry weight
toluene (108-88-3)	water, intermittent release	0,68 mg/L	fresh water
acetone (67-64-1)	marine water	1,06 mg/L	
acetone (67-64-1)	fresh water	10,6 mg/L	
acetone (67-64-1)	fresh water sediment	30,4 mg/kg	dry weight
acetone (67-64-1)	marine water sediment	3,04 mg/kg	dry weight
acetone (67-64-1)	water, intermittent release	21 mg/L	fresh water
acetone (67-64-1)	water treatment plant	100 mg/L	
acetone (67-64-1)	soil	29,5 mg/kg	dry weight
methyl acetate (79-20-9)	fresh water	0,12 mg/L	
methyl acetate (79-20-9)	water, intermittent release	1,2 mg/L	fresh water
methyl acetate (79-20-9)	marine water	0,012 mg/L	
methyl acetate (79-20-9)	water treatment plant	600 mg/L	
methyl acetate (79-20-9)	fresh water sediment	0,128 mg/kg	dry weight
methyl acetate (79-20-9)	marine water sediment	0,013 mg/kg	dry weight
methyl acetate (79-20-9)	soil	0,042 mg/kg	dry weight
methyl acetate (79-20-9)	food chain	20,4 mg/kg feed	oral
methanol (67-56-1)	fresh water	20,8 mg/L	
methanol (67-56-1)	water, intermittent release	1540 mg/L	fresh water
methanol (67-56-1)	marine water	2,08 mg/L	
methanol (67-56-1)	water treatment plant	100 mg/L	
methanol (67-56-1)	fresh water sediment	77 mg/kg	dry weight
methanol (67-56-1)	marine water sediment	7,7 mg/kg	dry weight
methanol (67-56-1)	soil	100 mg/kg	dry weight
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	fresh water	0,327 mg/L	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	water, intermittent release	0,327 mg/L	fresh water
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	marine water	0,327 mg/L	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	water treatment plant	6,58 mg/L	
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	fresh water sediment	12,46 mg/kg	dry weight

reaction mass of ethylbenzene and m-xylene and p-xylene (-)	marine water sediment	12,46 mg/kg	dry weight
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	soil	2,31 mg/kg	dry weight
2-butoxyethanol (111-76-2)	fresh water	8,8 mg/L	
2-butoxyethanol (111-76-2)	marine water	0,88 mg/L	
2-butoxyethanol (111-76-2)	fresh water sediment	34,6 mg/kg	dry weight
2-butoxyethanol (111-76-2)	soil	2,8 mg/kg	dry weight
2-butoxyethanol (111-76-2)	water treatment plant	463 mg/L	
2-butoxyethanol (111-76-2)	marine water sediment	3,46 mg/kg	dry weight
2-butoxyethanol (111-76-2)	food chain	0,02 g/kg of feed	oral
2-butoxyethanol (111-76-2)	water, intermittent release	9,1 mg/L	fresh water
ethyl methyl ketone (78-93-3)	fresh water	55,8 mg/L	
ethyl methyl ketone (78-93-3)	marine water	55,8 mg/L	
ethyl methyl ketone (78-93-3)	fresh water sediment	284,74 mg/kg	dry weight
ethyl methyl ketone (78-93-3)	water treatment plant	709 mg/L	
ethyl methyl ketone (78-93-3)	food chain	1000 mg/kg	oral
ethyl methyl ketone (78-93-3)	soil	22,5 mg/kg	dry weight
ethyl methyl ketone (78-93-3)	water, intermittent release	55,8 mg/L	fresh water
ethyl methyl ketone (78-93-3)	marine water sediment	284,7 mg/kg	dry weight
2-methoxy-1-methylethyl acetate (108-65-6)	soil	0,29 mg/kg	dry weight
2-methoxy-1-methylethyl acetate (108-65-6)	fresh water	0,635 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	fresh water sediment	3,29 mg/kg	dry weight
2-methoxy-1-methylethyl acetate (108-65-6)	marine water	0,0635 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	marine water sediment	0,329 mg/kg	dry weight
2-methoxy-1-methylethyl acetate (108-65-6)	water treatment plant	100 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	water, intermittent release	6,35 mg/L	fresh water

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes and skin. Do not breathe vapours/aerosols. Do not eat, drink or smoke while working. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. Personal protective equipment must be CE marked, showing that it complies with applicable standards. All personal protective equipment must comply with the relevant standards and must be maintained to ensure its expected function. Workers must be trained on the proper use and maintenance of personal protective equipment.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units available at the workplace.

Technical measures to prevent exposure

The use of adequate technical equipment must always take priority over personal protective equipment. Provide good ventilation and local exhaust in areas with increased concentration.

8.2.2. Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166). If there is danger of splash or spray use the face shield.

Hand protection

Use impermeable protective gloves, resistant to the product / substance / preparation. Protective gloves (EN 374). Use only protective gloves with CE-labelling of category III (EN 374). Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The product consists of various substances, therefore the resistance of gloves can not be calculated and has to be tested before use. The gloves' wear time depends on the duration and type of use.

Skin protection

Wear suitable protective clothing. Choose body protection according to the activity and possible exposure. Wear category II professional long-sleeved overalls and safety footwear (see Regulation (EU) 2016/425 and standard EN ISO 20344). Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. In case of insufficient ventilation wear mask with filter AX (EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). The protection provided by masks is in any case limited. For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138. For a correct choice of respiratory protection device, see standard EN 529.

Thermal hazards

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8.2.3. Environmental exposure controls

Substance/mixture related measures to prevent exposure

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

-	**Physical state:**	liquid
-	**Colour:**	colourless
-	**Odour:**	characteristic

Important health, safety and environmental information

-	**pH**	No information.
-	**Melting point/freezing point**	< -70 °C
-	**Initial boiling point/boiling range**	> 35 °C 55 – 175 °C
-	**Flash point**	< 22,9 °C
-	**Evaporation rate**	No information.
-	**Flammability (solid, gas)**	No information.
-	**Explosion limits (vol%)**	No information.
-	**Vapour pressure**	123,6 hPa
-	**Vapour density**	> 1
-	**Density**	**Relative density**: 0,84
-	**Solubility**	**Water**: 100 – 1000 mg/l > 10000 mg/l (2-methoxy-1-methylethyl acetate [108-65-6]) 100 – 1000 mg/l (toluene [108-88-3]) 1000 – 10000 mg/l (methanol [67-56-1]) 1000 – 10000 mg/l (2-butoxyethanol [111-76-2]) > 10000 mg/l (ethyl methyl ketone [78-93-3]) 243500 mg/l (methyl acetate [79-20-9])
-	**Partition coefficient**	No information.
-	**Auto-ignition temperature**	238 °C
-	**Decomposition temperature**	No information.
-	**Viscosity**	No information.
-	**Explosive properties**	No information.
-	**Oxidising properties**	No information.

9.2. Other information

-	**Weight organic solvents**	100 % 71,37 % (VOC) 602,48 g/l (VOC)
-	**Remarks:**	

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

TOLUENE: breaks down in sunlight.
ACETONE: decomposes under the effect of heat. ethyl methyl ketone: reacts with light metals like aluminium, and with strong oxidising agents; attacks various types of plastic. Decomposes under the effect of heat. 2-BUTOXYETHANOL: decomposes in the presence of heat. 1-METHOXY-2-PROPANOL ACETATE: stable but with air it may slowly develop peroxides that explode with an increase in temperature.

10.2. Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.
TOLUENE: Risk of explosion with: fuming sulfuric acid, nitric acid, silver perchlorates, nitrogen dioxide, nonmetallic halides, acetic acid, organic nitro compounds. It can form explosive mixtures with air.
ACETONE: risk of explosion on contact with: bromine trifluoride, difluoro dioxide, hydrogen peroxide, nitrosyl chloride, 2-methyl-1,3 butadiene, nitromethane, nitrosyl perchlorate. Acetone can react dangerously with: potassium tert-butoxide, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromyl chloride, nitric acid, chloroform, peroxymonosulphuric acid. ACETONE can also react dangerously with phosphoryl chloride, chromosulphuric acid, fluorine, strong oxidising agents. Develops flammable gases with nitrosyl perchlorate. XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air. ethyl methyl ketone: may generate peroxides on contact with air, light or oxidising agents. Risk of explosion on contact with: hydrogen peroxide and nitric acid, hydrogen peroxide and sulphuric acid.
Ethyl methyl ketone: can react violently with oxidizing agents, trichloromethane and bases. It can form an explosive mixture with air. 2-BUTOXYETHANOL: can react dangerously with: aluminium, oxidising agents. Forms peroxide with air. 1-METHOXY-2-PROPANOL ACETATE: may react violently with oxidising agents and strong acids and alkaline metals.

10.4. Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks. Strong heating. Protect against electrostatic charge build-up.

10.5. Incompatible materials

Oxidants.
Acids.
Ammonia.
Copper.
Chloroform. Alkali metal.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. During combustion irritating vapours or gases may form. Carbon oxides. Formaldehyde. Hydrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

Name	Exposure route	Type	Species	Time	Value	Method	Remark
For product	inhalation	LC_{50}			> 20 mg/l		
For product	oral	LD_{50}			1000 mg/kg		
For product	dermal	LD_{50}			> 2000 mg/kg		
toluene (108-88-3)	oral	LD_{50}	rat		5000 mg/kg		
toluene (108-88-3)	dermal	LD_{50}	rabbit		12267 mg/kg		
toluene (108-88-3)	inhalation	LC_{50}	mouse	4 h	25,7 mg/l		
acetone (67-64-1)	oral	LD_{50}	rat		5800 mg/kg		
acetone (67-64-1)	dermal	LD_{50}	rabbit		7400 mg/kg		
acetone (67-64-1)	inhalation	LC_{50}	rat		76 mg/l		
methyl acetate (79-20-9)	oral	LD_{50}	rat		> 6482 mg/kg		
methyl acetate (79-20-9)	dermal	LD_{50}	rat		> 2000 mg/kg		
methyl acetate (79-20-9)	inhalation	LC_{50}	rat	4 h	> 49,2 mg/l		
methanol (67-56-1)	oral	LD_{50}	rat		1187 – 2769 mg/kg		
methanol (67-56-1)	dermal	LD_{50}	rabbit		17000 mg/kg		
methanol (67-56-1)	inhalation	LC_{50}	rat	4 h	128,2 mg/l		
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	oral	LD_{50}	rat		3523 mg/kg		
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	dermal	LD_{50}	rabbit		12126 mg/kg		
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	inhalation	LC_{50}	rat	4 h	27,124 mg/l		
2-butoxyethanol (111-76-2)	oral	LD_{50}	rat		1746 mg/kg		
2-butoxyethanol (111-76-2)	dermal	LD_{50}	rat		> 2000 mg/kg		
2-butoxyethanol (111-76-2)	inhalation	LC_{50}	rat	4 h	2 mg/l		
ethyl methyl ketone (78-93-3)	oral	LD_{50}	rat		> 2193 mg/kg		
ethyl methyl ketone (78-93-3)	dermal	LD_{50}	rabbit		> 5000 mg/kg		
ethyl methyl ketone (78-93-3)	inhalation	LC_{50}	rat	4 h	> 5000 ppm		
2-methoxy-1-methylethyl acetate (108-65-6)	oral	LD_{50}	rat		8530 mg/kg		
2-methoxy-1-methylethyl acetate (108-65-6)	dermal	LD_{50}	rat		> 5000 mg/kg		

Additional information: Harmful if swallowed.

(b) Skin corrosion/irritation

Name	Species	Time	Result	Method	Remark
toluene (108-88-3)			Irritating.		

Additional information: Causes skin irritation.

(c) Serious eye damage/irritation

Additional information: Causes serious eye irritation.

(d) Respiratory or skin sensitisation

Additional information: The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

Name	Exposure route	Type	Species	Time	Value	Result	Method	Remark
toluene (108-88-3)						IARC 3: Not classifiable as to carcinogenicity to humans.		
reaction mass of ethylbenzene and m-xylene and p-xylene (-)						IARC 3: Not classifiable as to carcinogenicity to humans.		

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

Suspected of damaging the unborn child.

(h) STOT-single exposure

Additional information: May cause drowsiness or dizziness. May cause damage to organs.

(i) STOT-repeated exposure

Additional information: May cause damage to organs through prolonged or repeated exposure.

(j) Aspiration hazard

Additional information: May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
toluene (108-88-3)	LC_{50}	5,5 mg/L	96	fish			
	EC_{50}	3,78 mg/L	72 h	algae			
acetone (67-64-1)	EC_{50}	8800 mg/L	48 h	crustacea			
	LC_{50}	5540 mg/L	96 h	fish			
methyl acetate (79-20-9)	LC_{50}	250 mg/L	96 h	fish	*Brachydanio rerio*		
	EC_{50}	> 120 mg/L	72 h	algae			
methanol (67-56-1)	LC_{50}	15400 mg/L	96 h	fish	*Lepomis macrochirus*		
	EC_{50}	> 10000 mg/L	48 h	*Daphnia*			
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	LC_{50}	2,6 mg/L		fish			
	EC_{50}	0,96 – 1 mg/L		crustacea			
	LC10	> 1,3 mg/L		fish			
2-butoxyethanol (111-76-2)	LC_{50}	1474 mg/L	96 h	fish			
	EC_{50}	1550 mg/L	48 h	crustacea			
	EC_{50}	1840 mg/L	72 h	algae			
ethyl methyl ketone (78-93-3)	EC_{50}	> 100 mg/L	48 h	crustacea			

12.1.2. Chronic (long-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
methanol (67-56-1)	NOEC	7900 mg/l		fish	*Oryzias latipes*		

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

For components

Substance (CAS Nr.)	Type	Rate	Time	Evaluation	Method	Remark
toluene (108-88-3)	biodegradability			rapidly biodegradable		
acetone (67-64-1)	biodegradability			rapidly biodegradable		
methyl acetate (79-20-9)	biodegradability			rapidly biodegradable		
methanol (67-56-1)	biodegradability			rapidly biodegradable		
2-butoxyethanol (111-76-2)	biodegradability			rapidly biodegradable		
ethyl methyl ketone (78-93-3)	biodegradability			rapidly biodegradable		
2-methoxy-1-methylethyl acetate (108-65-6)	biodegradability			rapidly biodegradable		

12.3. Bioaccumulative potential

12.3.1. Partition coefficient

For components

Substance (CAS Nr.)	Media	Value	Temperature	pH	Concentration	Method
toluene (108-88-3)	Octanol-water (log Pow)	2,73				
acetone (67-64-1)	Octanol-water (log Pow)	-0,23				
methyl acetate (79-20-9)	Octanol-water (log Pow)	0,18				
methanol (67-56-1)	Octanol-water (log Pow)	-0,77				
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Octanol-water (log Pow)	3,12				
2-butoxyethanol (111-76-2)	Octanol-water (log Pow)	0,81	25 °C			OECD 107
ethyl methyl ketone (78-93-3)	Octanol-water (log Pow)	0,3				
2-methoxy-1-methylethyl acetate (108-65-6)	Octanol-water (log Pow)	1,2				

12.3.2. Bioconcentration factor (BCF)

For components

Substance (CAS Nr.)	Type	Organism	Value	Duration	Evaluation	Method	Remark
toluene (108-88-3)	BCF		90				
acetone (67-64-1)	BCF		3				
methanol (67-56-1)	BCF		0,2				
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	BCF		25,9				

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

No information.

12.4.2. Surface tension

No information.

12.4.3. Adsorption/Desorption

For components

Substance (CAS Nr.)	Type	Criterion	Value	Evaluation	Method	Remark
methyl acetate (79-20-9)	Soil		0,18			Koc
reaction mass of ethylbenzene and m-xylene and p-xylene (-)	Soil		2,73			Koc

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances in percentages greater than 0.1%.

12.6. Other adverse effects

No information.

12.7. Additional information

For product

Handle in accordance with good working practices so that the product is not released into the environment.
Do not allow to reach ground water, water courses or sewage system.
Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Reuse or recycle, if possible. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

13.1.2. Waste treatment-relevant information

Disposal in accordance with the Rules on the management of waste.

13.1.3. Sewage disposal-relevant information

-

13.1.4. Other disposal recommendations

-

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

3

14.4. Packing group

II

14.5. Environmental hazards

NO.

14.6. Special precautions for user

Limited quantities

5 L

Tunnel restriction code

(D/E)

IMDG flashpoint

22.9 °C, c.c.

IMDG EmS

F-E, S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Goods may not be carried in bulk in bulk containers, containers or vehicles.

SECTION 15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

EU limit values and category: B(a) 850 g/l. VOC Content: 844,11 g/l

15.1.2. Special instructions

Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3 - 40.
Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 48 (toluene).
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16. OTHER INFORMATION

Indication of changes

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Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC_{50} - Lethal Concentration to 50 % of a test population
LD_{50} - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for data

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List of relevant H phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H370 Causes damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure .
EUH066 Repeated exposure may cause skin dryness or cracking.

- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.