Safety Data Sheet
ENERGY LINE FAST FILLER LIGHT GREY
Safety Data Sheet dated 21/02/2025 version 7

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

1.1. Product identifier

Mixture identification:

Trade name: ENERGY LINE FAST FILLER LIGHT GREY

Trade code: L0EL0070

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

Recommended use: Coatings and paints, thinners, paint removers

Mono compound primer (undercoat)

Liquid pigmented dispersion

Professional uses

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company: Lechler SpA - Via Cecilio, 17 - 22100 Como - CO - Italy

Telephone: +39031586111

1.4. Emergency telephone number

UNITED KINGDOM: Emergency Number 0044 1606738600 - This telephone number is available during office hours only (8.45-16.45).

UNITED STATES OF AMERICA: Emergency Contact: Lechler SPA -Tel. +39-031-586301 (8.00-18.00).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Aerosols 1	Extremely flammable aerosol. Pressurized container: may burst if heated.
Eye Irrit. 2	Causes serious eye irritation.
STOT SE 3	May cause drowsiness or dizziness.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.
DECL10	This titanium dioxide-containing product is not classified as carcinogen by inhalation because it does not meet the criteria stated in Note 10, Annex VI of Regulation (EC) 1272/2008. Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word

Danger

Hazard statements

H222, H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing spray.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P312	Call a POISON CENTER/doctor/… if you feel unwell.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
P501	Dispose of container in accordance with national regulation.

Special Provisions:

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Contains

acetone

n-butyl acetate

ethyl acetate

propan-2-ol

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

Results of PBT and vPvB assessment Not a PBT, vPvB substance as per the criteria of the REACH Regulation. Endocrine disrupting properties-Toxicity 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. Endocrine disrupting properties-Ecotoxicity 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.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: ENERGY LINE FAST FILLER LIGHT GREY

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥30 - ≤40 %	dimethyl ether	CAS:115-10-6 EC:204-065-8 Index:603-019-00-8	Flam. Gas 1, H220; Press Gas (Comp.), H280	01-2119472128-37
≥15 - ≤20 %	acetone	CAS:67-64-1 EC:200-662-2 Index:606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119471330-49
≥12.5 - ≤15 %	n-butyl acetate	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29
≥5 - ≤7 %	ethyl acetate	CAS:141-78-6 EC:205-500-4 Index:607-022-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119475103-46

≥1 - ≤2.5 %	xylene	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 3, H412; STOT SE 3, H335	01-2119488216-32
≥1 - ≤2.5 %	Talc (Mg3H2(SiO3)4)	CAS:14807-96-6 EC:238-877-9	Substance with a Union workplace exposure limit.	
≥1 - ≤2.5 %	propan-2-ol	CAS:67-63-0 EC:200-661-7 Index:603-117-00-0	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	01-2119457558-25
≥1 - ≤2.5 %	2-butoxyethanol; ethylene glycol monobutyl ether	CAS:111-76-2 EC:203-905-0 Index:603-014-00-0	Acute Tox. 3, H331 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Toxicity Estimate: ATE - Oral: 1200mg/kg bw ATE - Inhalation (Vapours): 3mg/l	01-2119475108-36
≥0.5 - ≤1 %	trizinc bis(orthophosphate)	CAS:7779-90-0 EC:231-944-3 Index:030-011-00-6	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	01-2119485044-40
≥0.5 - ≤1 %	ethylbenzene	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; Asp. Tox. 1, H304; STOT RE 2, H373	01-2119489370-35
≥0.25 - ≤0.3 %	silicon dioxide	CAS:7631-86-9 EC:231-545-4	Substance with a Union workplace exposure limit.	01-2119379499-16
≥0.1 - ≤0.25 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	STOT SE 3, H336; Flam. Liq. 3, H226	01-2119475791-29
< 0.1 %	phosphoric acid	CAS:7664-38-2 EC:231-633-2 Index:015-011-00-6	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Specific Concentration Limits: C ≥ 25%: Skin Corr. 1B H314 10% ≤ C < 25%: Skin Irrit. 2 H315 10% ≤ C < 25%: Eye Irrit. 2 H319	01-2119485924-24
< 0.1 %	Respirable crystalline silica	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
< 0.1 %	formaldehyde	CAS:50-00-0 EC:200-001-8 Index:605-001-00-5	Acute Tox. 3, H301 Acute Tox. 3, H331 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 Specific Concentration Limits: C ≥ 25%: Skin Corr. 1B H314 5% ≤ C < 25%: Skin Irrit. 2 H315 5% ≤ C < 25%: Eye Irrit. 2 H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0.2%: Skin Sens. 1 H317	01-2119488953-20
< 0.1 %	Cumene	CAS:98-82-8 EC:202-704-5 Index:601-024-00-X	Flam. Liq. 3, H226; Carc. 1B, H350; Asp. Tox. 1, H304; STOT SE 3, H335; Aquatic Chronic 2, H411	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediatley and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation

Eye damages

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO_2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

7.2. Conditions for safe storage, including any incompatibilities

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
dimethyl ether CAS: 115-10-6	EU		Long Term: 1920 mg/m3 - 1000 ppm Behaviour Indicative 2000/39/EC
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 766 mg/m3 - 400 ppm; Short Term: 958 mg/m3 - 500 ppm
acetone CAS: 67-64-1	ACGIH		Long Term: 250 ppm; Short Term: 500 ppm A4, BEI - URT and eye irr, CNS impair
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1210 mg/m3 - 500 ppm; Short Term: 3620 mg/m3 - 1500 ppm
	EU		Long Term: 1210 mg/m3 - 500 ppm Behaviour Indicative 2000/39/EC
n-butyl acetate CAS: 123-86-4	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 724 mg/m3 - 150 ppm; Short Term: 966 mg/m3 - 200 ppm
	EU		Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Behaviour Indicative 2019/1831/EU
	ACGIH		Long Term: 50 ppm; Short Term: 150 ppm Eye and URT irr
ethyl acetate CAS: 141-78-6	EU		Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Behaviour Indicative 2017/164/EU
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm
xylene CAS: 1330-20-7	ACGIH		Long Term: 20 ppm A4, BEI - URT and eye irr; hematologic eff; CNS impair
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND	Long Term: 220 mg/m3 - 50 ppm; Short Term: 441 mg/m3 - 100 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to

		NORTHERN IRELAND	
	EU		Long Term: 221 mg/m3 - 50 ppm; Short Term: 442 mg/m3 - 100 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
Talc (Mg3H2(SiO3)4) CAS: 14807-96-6	ACGIH		Long Term: 2 mg/m3 Containing no asbestos fibers$ E,R, A4 - Pulm fibrosis, pulm func
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1 mg/m3 Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.
	EU		Long Term: 0.1 mg/m3 2004/37/EC
	EU		Carcinogens or mutagens
	EU		Respirable dust
propan-2-ol CAS: 67-63-0	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 999 mg/m3 - 400 ppm; Short Term: 1250 mg/m3 - 500 ppm
	ACGIH		Long Term: 200 ppm; Short Term: 400 ppm A4, BEI - Eye and URT irr, CNS impair
2-butoxyethanol; ethylene glycol monobutyl ether CAS: 111-76-2	EU		Long Term: 98 mg/m3 - 20 ppm; Short Term: 246 mg/m3 - 50 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 25 ppm; Short Term: 50 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
ethylbenzene CAS: 100-41-4	EU		Long Term: 442 mg/m3 - 100 ppm; Short Term: 884 mg/m3 - 200 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 441 mg/m3 - 100 ppm; Short Term: 552 mg/m3 - 125 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
	ACGIH		Long Term: 20 ppm OTO; A3, BEI - URT & eye irr; ototoxicity; kidney eff; CNS impair
silicon dioxide CAS: 7631-86-9	EU		Long Term: 0.1 mg/m3 2004/37/EC
	EU		Carcinogens or mutagens
	EU		Respirable dust
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 6 mg/m3 The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN	Long Term: 2.4 mg/m3 Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.

		IRELAND	
2-methoxy-1-methylethyl acetate CAS: 108-65-6	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 274 mg/m3 - 50 ppm; Short Term: 548 mg/m3 - 100 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
phosphoric acid CAS: 7664-38-2	EU		Long Term: 1 mg/m3; Short Term: 2 mg/m3 Behaviour Indicative 2000/39/EC
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1 mg/m3; Short Term: 2 mg/m3
	ACGIH		Long Term: 1 mg/m3; Short Term: 3 mg/m3 URT, eye and skin irr
Respirable crystalline silica CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m3 R, A2 - Pulm fibrosis, lung cancer
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 0.1 mg/m3 Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.
	EU		Long Term: 0.1 mg/m3 2004/37/EC
	EU		Respirable dust
	EU		Carcinogens or mutagens
formaldehyde CAS: 50-00-0	ACGIH		Long Term: 0.1 ppm; Short Term: 0.3 ppm DSEN, RSEN, A1 - URT and eye irr, URT cancer
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 2.5 mg/m3 - 2 ppm; Short Term: 2.5 mg/m3 - 2 ppm
	EU		Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm 2004/37/EC
	EU		Dermal sensitisation
	EU		Carcinogens or mutagens
Cumene CAS: 98-82-8	EU		Long Term: 50 mg/m3 - 10 ppm; Short Term: 250 mg/m3 - 50 ppm Behaviour Indicative 2019/1831/EU
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 125 mg/m3 - 25 ppm; Short Term: 250 mg/m3 - 50 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
	ACGIH		Long Term: 5 ppm A3 - URT adenoma, neurological eff

Biological limit values

acetone CAS: 67-64-1	Biological Indicator: Acetone; Sampling Period: End of turn Value: 50 mg/L; Medium: Urine

Remark: Argentina. Biological Exposure Indices

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 80 mg/L; Medium: Urine
Remark: Bulgaria. Biological limit values

Biological Indicator: Acetone; Sampling Period: FSL
Value: 30000 µg/g; Medium: Urine
Remark: Chile. Biological Limit Values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 25 mg/L; Medium: Urine
Remark: Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposu

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 34 Millimoles per liter; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 20 mg/L; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 39 Millimoles per mole Creatinine; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 20 mg/g Creatinine; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 80 mg/L; Medium: Urine
Remark: TRGS 903 - Biological limit values

Biological Indicator: Acetone; Sampling Period: Within 2 h prior to end of shift
Value: 40 mg/L; Medium: Urine
Remark: Occupational exposure limits based on biological monitoring (JSOH).

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Urine
Remark: Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for work

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Urine
Remark: Portuguese Norm 1796 - Biological Exposure Indices

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Urine
Remark: Romania. Biological limit values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 80 mg/L; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 1378 micromol per litre; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 5336 mg/g Creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 1039 micromoles per millimole creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 80 mg/L; Medium: Urine
Remark: Slovenia. BAT-values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 100 mg/L; Medium: Urine
Remark: South Africa. Hazardous Chemical Substances Regulations, Biological Exposure Indices.

Biological Indicator: Acetone; Sampling Period: End of workday
Value: 50 mg/L; Medium: Urine
Remark: Occupational Exposure Limits for Chemical Agents in Spain - Biological Exposure Values

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 138 Millimoles per liter; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 80 mg/L; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 25 mg/L; Medium: Urine
Remark: ACGIH - Indicatori di Esposizione Biologica (BEI)

Biological Indicator: Acetone; Sampling Period: End of workday
Value: 50 mg/L; Medium: Urine
Remark: VE.Biological Exposure Limits

Sampling Period: End of turn

xylene
CAS: 1330-20-7

Biological Indicator: xylene; Sampling Period: End of turn
Value: 1.5 mg/L; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Methylhippuric acid; Sampling Period: End of turn
Value: 1.5 g/l; Medium: Urine
Remark: New Zealand. Biological Exposure Indices

Biological Indicator: xylene; Sampling Period: End of turn
Value: 1.5 mg/L; Medium: Blood
Remark: Slovakia. Biological Limit Values

Biological Indicator: sum of 2,3,4-methylhippuric acid; Sampling Period: End of turn
Value: 2000 mg/L; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: methylhypuric acid; Sampling Period: End of turn
Value: 3 g/l; Medium: Urine
Remark: Romania. Biological limit values

Biological Indicator: methylhippuric acid (all isomers); Sampling Period: End of turn
Value: 2 g/l; Medium: Urine
Remark: Slovenia. BAT-values

Biological Indicator: xylene; Sampling Period: Immediately after exposure or after working hours
Value: 1.5 mg/L; Medium: Blood
Remark: TRGS 903 - Biological limit values

Biological Indicator: methylhippuric acid (all isomers); Sampling Period: Immediately after exposure or after working hours
Value: 2 g/l; Medium: Urine
Remark: TRGS 903 - Biological limit values

Biological Indicator: Methylhippuric acid; Sampling Period: Last 4 hours of shift
Value: 2 mg/L; Medium: Urine
Remark: South Africa. Hazardous Chemical Substances Regulations, Biological Exposure Indices.

Biological Indicator: total (o-, m-, p-)methylhippuric acid; Sampling Period: End of turn; End of working week
Value: 800 mg/L; Medium: Urine
Remark: Occupational exposure limits based on biological monitoring (JSOH).

Biological Indicator: methyl hippuric acid; Sampling Period: At the end of a work week / at the end of a work day / at the end of a shift
Value: 1.5 g/l; Medium: Urine
Remark: Austria. Regulation on health surveillance in the workplace 2014

Biological Indicator: xylene; Sampling Period: End of workday
Value: 1 mg/L; Medium: Blood
Remark: Austria. Regulation on health surveillance in the workplace 2014

Biological Indicator: Methylhippuric acid; Sampling Period: At the end of exposure, in 4 hours
Value: 2 mg/L; Medium: Urine
Remark: Kenya. Occupational Safety and Health Act (CAP.514), Schedule I, Table 3 Biological Exposure Limits

Biological Indicator: methyl hippuric acid; Sampling Period: After shift
Value: 5 Millimoles per liter; Medium: Urine
Remark: Finland. Biological limit values

Biological Indicator: methyl hippuric acid; Sampling Period: Immediately after exposure or after working hours
Value: 2 g/l; Medium: Urine

Remark: Svizzera. Lista di valori BAT

propan-2-ol
CAS: 67-63-0

Biological Indicator: Acetone
Value: 2 mg/g Creatinine; Medium: Urine
Remark: Argentina. Biological Exposure Indices

Biological Indicator: Acetone; Sampling Period: End of turn; End of working week
Value: 40 mg/L; Medium: Urine
Remark: Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposu

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 86 micromol per litre; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 86 micromol per litre; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 25 mg/L; Medium: Blood
Remark: TRGS 903 - Biological limit values

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 25 mg/L; Medium: Urine
Remark: TRGS 903 - Biological limit values

Biological Indicator: Acetone; Sampling Period: End of turn; End of working week
Value: 40 mg/L; Medium: Urine
Remark: Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for work

Biological Indicator: Acetone; Sampling Period: End of turn; End of working week
Value: 40 mg/L; Medium: Urine
Remark: Portuguese Norm 1796 - Biological Exposure Indices

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 50 mg/L; Medium: Urine
Remark: Romania. Biological limit values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 25 mg/L; Medium: Blood
Remark: Slovenia. BAT-values

Biological Indicator: Acetone; Sampling Period: End of turn
Value: 25 mg/L; Medium: Urine
Remark: Slovenia. BAT-values

Biological Indicator: Acetone; Sampling Period: FSL
Value: 40 mg/L; Medium: Urine
Remark: Occupational Exposure Limits for Chemical Agents in Spain - Biological Exposure Values

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 25 mg/L; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 4 Millimoles per liter; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 25 mg/L; Medium: Blood
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: Immediately after exposure or after working hours
Value: 4 Millimoles per liter; Medium: Blood
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Acetone; Sampling Period: End of turn; End of working week
Value: 40 mg/L; Medium: Urine
Remark: ACGIH - Indicatori di Esposizione Biologica (BEI)

	Biological Indicator: Acetone; Sampling Period: End of workday at end of workweek Value: 40 mg/L; Medium: Urine Remark: VE.Biological Exposure Limits
2-butoxyethanol; ethylene glycol monobutyl ether CAS: 111-76-2	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn Value: 200 mg/g Creatinine; Medium: Urine Remark: Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposu
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn; End of working week Value: 200 mg/g Creatinine; Medium: Urine Remark: Czech Republic. Biological Exposure Indices
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn; End of working week Value: 17 mmol/mmol creatinine; Medium: Urine Remark: Czech Republic. Biological Exposure Indices
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: Immediately after exposure or after working hours Value: 150 mg/g Creatinine; Medium: Urine Remark: TRGS 903 - Biological limit values
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: In case of long-term exposure: after more than one shift Value: 100 mg/L; Medium: Urine Remark: TRGS 903 - Biological limit values
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn Value: 200 mg/g Creatinine; Medium: Urine Remark: Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for work
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn Value: 200 mg/g Creatinine; Medium: Urine Remark: Portuguese Norm 1796 - Biological Exposure Indices
	Biological Indicator: methoxy acetic acid; Sampling Period: during long-term exposure: at the end of the work shift after several consecutive workdays Value: 150 mg/g Creatinine; Medium: Urine Remark: Slovenia. BAT-values
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of workday Value: 200 mg/g Creatinine; Medium: Urine Remark: Occupational Exposure Limits for Chemical Agents in Spain - Biological Exposure Values
	Biological Indicator: 2-butoxy acetic acid; Sampling Period: Immediately after exposure or after working hours Value: 150 mg/g Creatinine; Medium: Urine Remark: Svizzera. Lista di valori BAT
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: After shift Value: 240 Millimoles per mole Creatinine; Medium: Urine Remark: UK. Biological monitoring guidance values
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn Value: 200 mg/g Creatinine; Medium: Urine Remark: ACGIH - Indicatori di Esposizione Biologica (BEI)
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of workday Value: 200 mg/g Creatinine; Medium: Urine Remark: VE.Biological Exposure Limits
	Sampling Period: In case of long-term exposure: after more than one shift
	Sampling Period: End of turn
	Sampling Period: In case of long-term exposure: after more than one shift
ethylbenzene CAS: 100-41-4	Biological Indicator: mandelic acid; Sampling Period: after the last shift of the last day of the work week Value: 15 g/g creatinine; Medium: Urine Remark: Argentina. Biological Exposure Indices
	Biological Indicator: Ethylbenzene; Sampling Period: after the last shift of the last day of the work week Value: 15 g/g creatinine; Medium: Air at the end of exhalation Remark: Argentina. Biological Exposure Indices
	Biological Indicator: mandelic acid; Sampling Period: End of turn; End of working week Value: 15 g/g creatinine; Medium: Urine Remark: Brazil. NR7. Parameters for Biological Control of Occupational Exposure to Some Chemical Agents
	Biological Indicator: total mandelic acid plus phenylglyoxylic acid; Sampling Period: End of turn

Value: 2000 mg/g Creatinine; Medium: Urine
Remark: Bulgaria. Biological limit values

Biological Indicator: mandelic acid; Sampling Period: End of turn
Value: 1500 mg/g Creatinine; Medium: Urine
Remark: Chile. Biological Limit Values

Biological Indicator: Sum of mandelic acid and phenyl glyoxylic acid; Sampling Period: End of turn
Value: 15 g/g creatinine; Medium: Urine
Remark: Maximum allowable occupational exposure limits in the workplace - Table 3. Adopted Biological Exposu

Biological Indicator: Ethylbenzene; Sampling Period: during exposure
Value: 141 micromol per litre; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: Ethylbenzene; Sampling Period: during exposure
Value: 1.5 mg/L; Medium: Blood
Remark: Croatia. Biological Exposure Limits

Biological Indicator: mandelic acid; Sampling Period: End of turn; End of working week
Value: 112 mol/mol creatinine; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: mandelic acid; Sampling Period: End of turn; End of working week
Value: 15 g/g creatinine; Medium: Urine
Remark: Croatia. Biological Exposure Limits

Biological Indicator: mandelic acid; Sampling Period: End of turn
Value: 1500 mg/g Creatinine; Medium: Urine
Remark: Czech Republic. Biological Exposure Indices

Biological Indicator: mandelic acid; Sampling Period: End of turn
Value: 1100 micromoles per millimole creatinine; Medium: Urine
Remark: Czech Republic. Biological Exposure Indices

Biological Indicator: mandelic acid; Sampling Period: After the work shift at the end of week or exposure period
Value: 5.2 Millimoles per liter; Medium: Urine
Remark: Finland. Biological limit values

Biological Indicator: mandelic acid + phenylglyoxylic acid; Sampling Period: Immediately after exposure or after working hours
Value: 250 mg/g Creatinine; Medium: Urine
Remark: TRGS 903 - Biological limit values

Biological Indicator: mandelic acid; Sampling Period: After shift
Value: 1500 mg/g Creatinine; Medium: Urine
Remark: Hungary. Permissible limit values of biological exposure (effect) indices

Biological Indicator: mandelic acid; Sampling Period: After shift
Value: 1110 micromoles per millimole creatinine; Medium: Urine
Remark: Hungary. Permissible limit values of biological exposure (effect) indices

Biological Indicator: Mandelic acid; Sampling Period: End of turn; End of working week
Value: 15 g/g creatinine; Medium: Urine
Remark: Kenya. Occupational Safety and Health Act (CAP.514), Schedule I, Table 3 Biological Exposure Limits

Biological Indicator: Ethylbenzene
Medium: Air at the end of exhalation
Remark: Kenya. Occupational Safety and Health Act (CAP.514), Schedule I, Table 3 Biological Exposure Limits

Biological Indicator: Sum of Mandelic acid plus phenylglyoxylic acid; Sampling Period: End of turn; End of working week
Value: 7 g/g creatinine; Medium: Urine
Remark: Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for work

Biological Indicator: Ethylbenzene; Sampling Period: Not critical
Medium: exhaled air
Remark: Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for work

Biological Indicator: Sum of mandelic acid and phenylglyoxylic acids; Sampling Period: End of turn
Value: 25 g/g creatinine; Medium: Urine
Remark: New Zealand. Biological Exposure Indices

Biological Indicator: Sum of mandelic acid and phenyl glyoxylic acid; Sampling Period: End of turn

Value: 7 g/g creatinine; Medium: Urine
Remark: Portuguese Norm 1796 - Biological Exposure Indices

Biological Indicator: mandelic acid; Sampling Period: End of working week
Value: 15 g/g creatinine; Medium: Urine
Remark: Romania. Biological limit values

Biological Indicator: 2- and 4-ethylphenol; Sampling Period: End of turn
Value: 12 mg/L; Medium: Blood
Remark: Slovakia. Biological Limit Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: In case of long-term exposure: after more than one shift
Value: 1600 mg/L; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: 2- and 4-ethylphenol; Sampling Period: In case of long-term exposure: after more than one shift
Value: 986 micromol per litre; Medium: Blood
Remark: Slovakia. Biological Limit Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: In case of long-term exposure: after more than one shift
Value: 10590 micromol per litre; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: End of turn
Value: 1067 mg/g Creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: End of turn
Value: 799 micromoles per millimole creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: 2- and 4-ethylphenol; Sampling Period: In case of long-term exposure: after more than one shift
Value: 803 mg/g Creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: 2- and 4-ethylphenol; Sampling Period: In case of long-term exposure: after more than one shift
Value: 744 micromoles per millimole creatinine; Medium: Urine
Remark: Slovakia. Biological Limit Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: End of turn
Value: 250 mg/g Creatinine; Medium: Urine
Remark: Slovenia. BAT-values

Biological Indicator: Mandelic acid; Sampling Period: End of turn; End of working week
Value: 15 g/g creatinine; Medium: Urine
Remark: South Africa. Hazardous Chemical Substances Regulations, Biological Exposure Indices.

Biological Indicator: Ethylbenzene
Medium: Air at the end of exhalation
Remark: South Africa. Hazardous Chemical Substances Regulations, Biological Exposure Indices.

Biological Indicator: sum of mandelic acid and phenylglyoxilic acid; Sampling Period: FSL
Value: 700 mg/g Creatinine; Medium: Urine
Remark: Occupational Exposure Limits for Chemical Agents in Spain - Biological Exposure Values

Biological Indicator: Mandelic acid and phenylglyoxylic; Sampling Period: Immediately after exposure or after working hours
Value: 600 mg/g Creatinine; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: Sum of mandelic acid and phenyl glyoxylic acid; Sampling Period: End of turn
Value: 15 g/g creatinine; Medium: Urine
Remark: ACGIH - Indicatori di Esposizione Biologica (BEI)

Biological Indicator: Mandelic acid; Sampling Period: End of workday at end of workweek
Value: 7 g/g creatinine; Medium: Urine
Remark: VE.Biological Exposure Limits

Biological Indicator: Ethylbenzene; Sampling Period: At discretion
Medium: in exhaled air
Remark: VE.Biological Exposure Limits

formaldehyde
CAS: 50-00-0

Biological Indicator: spirometry
Remark: Uruguay. Health surveillance of workers - Biological Exposure Indices (BEI).

Cumene CAS: 98-82-8	Biological Indicator: 2-phenyl-2-propanol; Sampling Period: Immediately after exposure or after working hours Value: 10 mg/g Creatinine; Medium: Urine Remark: TRGS 903 - Biological limit values
	Biological Indicator: 2-phenyl-2-propanol; Sampling Period: End of turn Value: 10 mg/g Creatinine; Medium: Urine Remark: Slovenia. BAT-values
	Biological Indicator: 2-phenyl-2-propanol; Sampling Period: Immediately after exposure or after working hours Value: 20 mg/g Creatinine; Medium: Urine Remark: Svizzera. Lista di valori BAT
	Biological Indicator: 2-phenyl-2-propanol; Sampling Period: Immediately after exposure or after working hours Value: 166 micromoles per millimole creatinine; Medium: Urine Remark: Svizzera. Lista di valori BAT

Predicted No Effect Concentration (PNEC) values

acetone CAS: 67-64-1	Exposure Route: Fresh Water; PNEC Limit: 10.6 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 21 mg/l
	Exposure Route: Marine water; PNEC Limit: 1.06 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 30.4 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 3.04 mg/kg
	Exposure Route: Soil; PNEC Limit: 29.5 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l
n-butyl acetate CAS: 123-86-4	Exposure Route: Fresh Water; PNEC Limit: 0.18 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.36 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.01 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.98 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.09 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.09 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 35.6 mg/l
xylene CAS: 1330-20-7	Exposure Route: Fresh Water; PNEC Limit: 0.32 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.32 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.32 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 12.46 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 12.46 mg/kg
	Exposure Route: Soil; PNEC Limit: 2.31 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 6.58 mg/l
propan-2-ol CAS: 67-63-0	Exposure Route: Fresh Water; PNEC Limit: 140.9 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 140.9 mg/l
	Exposure Route: Marine water; PNEC Limit: 140.9 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 552 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 552 mg/kg
	Exposure Route: Soil; PNEC Limit: 28 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 2251 mg/l
2-butoxyethanol; ethylene glycol monobutyl ether CAS: 111-76-2	Exposure Route: Fresh Water; PNEC Limit: 8.8 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 26.4 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.88 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 34.6 mg/kg dry weight (d.w.)
	Exposure Route: Marine water sediments; PNEC Limit: 3.46 mg/kg dry weight (d.w.)

	Exposure Route: Soil; PNEC Limit: 2.33 mg/kg dry weight (d.w.)
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 436 mg/l
trizinc bis(orthophosphate) CAS: 7779-90-0	Exposure Route: Fresh Water; PNEC Limit: 0.206 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.0061 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 117.8 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 56.5 mg/kg
	Exposure Route: Soil; PNEC Limit: 35.6 mg/kg
2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Fresh Water; PNEC Limit: 0.635 mg/kg
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 6.35 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.064 mg/kg
	Exposure Route: Freshwater sediments; PNEC Limit: 3.29 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.329 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.29 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l
formaldehyde CAS: 50-00-0	Exposure Route: Fresh Water; PNEC Limit: 0.47 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.47 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 2.44 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.21 mg/kg
Cumene CAS: 98-82-8	Exposure Route: Fresh Water; PNEC Limit: 0.035 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.004 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.012 mg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 200 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 3.22 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.322 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.624 mg/kg

Derived No Effect Level (DNEL) values

acetone CAS: 67-64-1	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 62 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 62 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 200 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Worker Professional: 2420 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 186 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 1210 mg/m3
n-butyl acetate CAS: 123-86-4	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 600 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Industry: 600 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 11 mg/kg dry weight (d.w.)

	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Industry: 11 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 35.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Consumer: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 35.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Consumer: 300 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 6 mg/kg dry weight (d.w.)
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Consumer: 6 mg/kg dry weight (d.w.)
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 2 mg/kg dry weight (d.w.)
	Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects Consumer: 2 mg/kg dry weight (d.w.)
xylene CAS: 1330-20-7	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 65.3 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 12.5 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 442 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 212 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 221 mg/m3
propan-2-ol CAS: 67-63-0	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 89 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 500 mg/m3
2-butoxyethanol; ethylene glycol monobutyl ether CAS: 111-76-2	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Consumer: 147 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Consumer: 426 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects Consumer: 26.7 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 59 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 6.3 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 246 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 1091 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 98 mg/m3

trizinc bis(orthophosphate) CAS: 7779-90-0	Exposure Route: Human Inhalation; Exposure Frequency: Local Effects Worker Professional: 5 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Local Effects Worker Professional: 83 ppm
	Exposure Route: Human Dermal; Exposure Frequency: Local Effects Consumer: 83 ppm
	Exposure Route: Human Inhalation; Exposure Frequency: Local Effects Consumer: 2.5 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Chronic Effects Consumer: 0.83 ppm
2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Consumer: 33 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 36 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 320 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 33 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Worker Professional: 550 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 796 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 275 mg/m3
phosphoric acid CAS: 7664-38-2	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 10.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 4.57 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 0.1 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 1 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 0.36 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 2 mg/m3
formaldehyde CAS: 50-00-0	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 9 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 9 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 3.2 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 0.5 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 0.5 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 0.1 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 1 mg/m3

	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 1 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Cumene CAS: 98-82-8	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 100 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Worker Professional: 250 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 16.6 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects

Technical measures to prevent exposure

formaldehyde: E

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquified Gas

Colour: Grey

Odour: N.A.

pH: Not Relevant

Kinematic viscosity: N.A.

Melting point/freezing point: N.A.

Boiling point or initial boiling point and boiling range: N.A.

Flash point: < 0°C / 32°F

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: N.A.

Density and/or relative density: 0.76 g/cm3

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient n-octanol/water (log value): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Kinematic viscosity m2/s (40°C)

Viscosity:

Particle characteristics:

Particle size: N.A.

9.2. Other information

Evaporation rate: N.A.

Miscibility: N.A.

Conductivity: N.A.

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
	ATEmix - Oral : 120000 mg/kg bw
	ATEmix - Dermal : 53786.4 mg/kg bw
	ATEmix - Inhalation (Vapours) : 192.584 mg/l
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H336)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

dimethyl ether	a) acute toxicity	LC50 Inhalation 164000 Ppm	
acetone	a) acute toxicity	LD50 Oral Rat = 5800 mg/kg	
		LC50 Inhalation Rat = 76 mg/l 4h	
		LD50 Skin Rabbit > 15800 mg/kg	
n-butyl acetate	a) acute toxicity	LD50 Oral Rat = 10760 mg/kg	OECD Test Guideline 423
		LC50 Inhalation > 20 mg/l 4h	
		LD50 Skin Rabbit > 14112 mg/kg	OECD Test Guideline 402
ethyl acetate	a) acute toxicity	LD50 Oral Rat = 5620 mg/kg	
		LC50 Inhalation Rat = 56 mg/l 4h	
		LD50 Skin Rabbit > 18000 mg/kg	
xylene	a) acute toxicity	LD50 Oral Mouse = 5627 mg/kg	

		LC50 Inhalation Rat = 6700 Ppm 4h LD50 Skin Rabbit > 5000 mg/kg	
Talc (Mg3H2(SiO3)4)	a) acute toxicity	LD50 Oral > 5000 mg/kg bw	
propan-2-ol	a) acute toxicity	LD50 Oral Rat = 5840 mg/kg LC50 Inhalation Rat > 10000 Ppm 6h	
2-butoxyethanol; ethylene glycol monobutyl ether	a) acute toxicity	ATE - Oral : 1200 mg/kg bw	
		ATE - Inhalation (Vapours) : 3 mg/l	
		LD50 Oral Rat = 1746 mg/kg	OECD Test Guideline 401
		LD50 Skin Rabbit > 2000 mg/kg	OECD Test Guideline 402
ethylbenzene	a) acute toxicity	LD50 Oral Rat = 3500 mg/kg LD50 Skin Rabbit > 5000 mg/kg	
silicon dioxide	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LC0 Inhalation Rat = 0.139 mg/l 4h - The product does not contain any substance classified for this hazard LD50 Skin Rabbit > 5000 mg/kg	
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LC0 Inhalation Rat > 2000 Ppm 3h LD50 Skin Rabbit > 5000 mg/kg	
phosphoric acid	a) acute toxicity	LD50 Oral Rat = 2600 mg/kg LD50 Skin Rabbit = 2740 mg/kg	
formaldehyde	a) acute toxicity	LD50 Oral Rat = 100 mg/kg LC50 Inhalation Vapour Rat > 3 mg/l 4h LD50 Skin Rabbit = 300 mg/kg	

11.2. Information on other hazards

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.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Harmful to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
acetone	CAS: 67-64-1 - EINECS: 200-662-2 - INDEX: 606-001-00-8	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 8120 mg/L 96 H
		a) Aquatic acute toxicity : EC50 Invertebrates Daphnia (water flea) = 8800

		mg/L 48 H e) Plant toxicity : NOEC Algae algae = 530 mg/L 8 D
n-butyl acetate	CAS: 123-86-4 - EINECS: 204-658-1 - INDEX: 607-025-00-1	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 18 mg/L 96 H OECD Test Guideline 203 a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) = 44 mg/L 48 H OECD Test Guideline 202 e) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) = 397 mg/L 72 H OECD Test Guideline 201 c) Bacteria toxicity : IC50 Microorganisms Tetrahymena pyriformis = 356 mg/L 40 H
ethyl acetate	CAS: 141-78-6 - EINECS: 205-500-4 - INDEX: 607-022-00-5	a) Aquatic acute toxicity : LC50 Fish = 230 mg/L 96 H a) Aquatic acute toxicity : EC50 Invertebrates Daphnia (water flea) > 2500 mg/L 24 H e) Plant toxicity : EC50 Algae > 100 mg/L 72 H
xylene	CAS: 1330-20-7 - EINECS: 215-535-7 - INDEX: 601-022-00-9	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) = 2.6 mg/L 96 H a) Aquatic acute toxicity : IC50 Invertebrates Daphnia magna (Water flea) = 1 mg/L 24 H e) Plant toxicity : EC0 Algae Pseudokirchneriella subcapitata (green algae) = 0.44 mg/L 72 H b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss (rainbow trout) > 1.3 mg/L 56 D e) Plant toxicity : Algae Pseudokirchneriella subcapitata (green algae) = 4.36 mg/L 72 H
propan-2-ol	CAS: 67-63-0 - EINECS: 200-661-7 - INDEX: 603-117-00-0	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 9640 mg/L 96 H a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) > 10000 mg/L 24 H e) Plant toxicity : EC50 Algae Scenedesmus quadricauda (Green algae) = 1800 mg/L 7 D
2-butoxyethanol; ethylene glycol monobutyl ether	CAS: 111-76-2 - EINECS: 203-905-0 - INDEX: 603-014-00-0	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) = 1474 mg/L 96 H OECD Test Guideline 203 a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) = 1550 mg/L 48 H OECD Test Guideline 202 e) Plant toxicity : EC50 Algae Pseudokirchneriella subcapitata (green algae) = 911 mg/L 72 H OECD Test Guideline 201 b) Aquatic chronic toxicity : NOEC Fish Brachydanio rerio > 100 mg/L 21 D OECD Test Guideline 204
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9 - INDEX: 607-195-00-7	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) 100 mg/L 96 H a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) > 500 mg/L 48 H e) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) > 1000 mg/L 96 H b) Aquatic chronic toxicity : NOEC Fish Oryzias latipes (Japanese medaka) =

		47.5 mg/L 14 D b) Aquatic chronic toxicity : NOEC Invertebrates Daphnia magna (Water flea) >= 100 mg/L 21 D e) Plant toxicity : NOEC Algae Selenastrum capricornutum (green algae) >= 1000 mg/L 96 H
phosphoric acid	CAS: 7664-38-2 - EINECS: 231-633-2 - INDEX: 015-011-00-6	a) Aquatic acute toxicity : LC50 Fish = 75.1 mg/L 96 H a) Aquatic acute toxicity : EC50 Invertebrates > 100 mg/L 48 H e) Plant toxicity : EC50 Algae > 100 mg/L 72 H

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

12.6. 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

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

1950

14.2. UN proper shipping name

ADR-Shipping Name: AEROSOLS, flammable

IATA-Shipping Name: AEROSOLS, FLAMMABLE

IMDG-Shipping Name: AEROSOLS

14.3. Transport hazard class(es)

ADR-Class: 2

IATA-Class: 2.1

IMDG-Class: 2

14.4. Packing group

ADR-Packing Group: -

IATA-Packing group: -

IMDG-Packing group: -

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-D, S-U

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 2.1

ADR - Hazard identification number: -

ADR-Special Provisions: 190 327 344 625

ADR-Transport category (Tunnel restriction code): 2 (D)

Air (IATA):

IATA-Passenger Aircraft: 203
IATA-Cargo Aircraft: 203
IATA-Label: 2.1
IATA-Subsidiary hazards: -
IATA-Erg: 10L
IATA-Special Provisions: A145 A167 A802

Sea (IMDG):

IMDG-Stowage and handling: SW1 SW22
IMDG-Segregation: SG69
IMDG-Subsidiary hazards: See SP63
IMDG-Special Provisions: 63 190 277 327 344 381 959

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2020/878

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40
Restrictions related to the substances contained: 75

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Product belongs to category: P3a	150	500

Explosives precursors – Regulation 2019/1148

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point

Substance(s) listed in regulation 2019/1148:

>=15 - <=20 % acetone	67-64-1	Annex II

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

German Lagerklasse according to TRGS 510:

LGK 2B

SVHC Substances:

No SVHC substances present in concentration >= 0.1%

DIRECTIVE 2010/75/EU (VOC directive)

Volatile Organic compounds - VOCs = 80.43 %

Volatile Organic compounds - VOCs = 611.29 g/L

Estimated Total Content of Water 0.00 %

Estimated Total Solid Content 19.57 %

Mal-Code (Denmark)

Mal-Code (Denmark)	Mal Factor	Unit of Measure	Revision Status / Number	Regulatory Base
3 - 6	1.426	m3 air/10 g	1993	Administrative determined MAL-Factors

Biocides

REGULATION (EC) No 528/2012

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H222, H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H290	May be corrosive to metals.
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.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.16/1	Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
2.2/1	Flam. Gas 1	Flammable gas, Category 1
2.3/1	Aerosols 1	Aerosol, Category 1
2.5/C	Press Gas (Comp.)	Gases under pressure (Compressed gas)
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3

3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.5/2	Muta. 2	Germ cell mutagenicity, Category 2
3.6/1B	Carc. 1B	Carcinogenicity, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, Category 1
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 9: Physical and chemical properties