

Safety Data Sheet

Reg. (EU) REACH 1907/2006 Ex article 31

SECTION 1. IDENTIFICATION OF THE PRODUCT AND OF THE PRODUCER

1.1. Product identification

Trade Name

OPERAVIVA-ITALYMARINE

Trade Code:

IM.TOP.18

1.2. Identified uses of the substance and non indicated uses

Anticorrosive paint for metal protection for above & underwater water applications

Description/use

ONLY PROFESSIONAL USE

Non indicated uses

None especially

1.3. Information on supplier of safety data sheet

Seller

NEWFANTACHROME INTERNATIONAL S.R.L.

Address

V.le J. F. Kennedy, 154/156

City and State

10040 Leini (TO) Italy

Tel: +39 119969224

e-mail of Responsible for safety data sheet

newfantachrome@newfantachrome.com

1.4. Emergency phone number

Company emergency phone numbers:

Tel. +39 119969224 - +39 335353527

For emergency information calls

List of Italian Antipoison Centers:

Ospedale Niguarda Ca' Granda – MILANO – Tel. 02/66101029

CAV Centro Nazionale di Informazione Tossicologica – PAVIA – Tel.

0382/24444 Azienda Ospedaliera Papa Giovanni XXIII – BERGAMO –

Tel. 800883300 Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica

– FIRENZE – Tel. 055/7947819 CAV Policlinico "A.Gemelli" – ROMA –

Tel. 06/3054343

CAV Policlinico "Umberto I" – ROMA – Tel. 06/49978000

Azienda Ospedaliera "A. Cardarelli" – NAPOLI – Tel. 081/7472870

Azienda Ospedaliera Univ. Foggia – FOGGIA – Tel. 0881/732326

CAVp "Osp. Pediatrico Bambino Gesù" -ROMA- Tel. 06 68593726

Azienda Ospedaliera Integrata Verona - VERONA - Tel. 800011858

SECTION 2. CLASSIFICATION AND HAZRD INDICATION



2.1. Classification of the substance or mixture

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

Flam. Liq. 3

Flammable liquid and vapour.

Skin Irrit. 2

Causes skin irritation.

Eye Irrit. 2

Causes serious eye irritation.

Skin Sens. 1B

May cause an allergic skin reaction.

Repr. 2

Suspected of damaging fertility or the unborn child.

STOT SE 3

May cause respiratory irritation.

STOT SE 3

May cause drowsiness or dizziness.

STOT RE 2

May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1

May be fatal if swallowed and enters airways.

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

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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 dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.

Contains

n-butyl acetate
Acrylic copolymer
xylene
4-hydroxy-4-methylpentan-2-one

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

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: OPERA VIVA-ITALYMARINE

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥30 - ≤40%	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
≥25 - ≤30%	Acrylic copolymer		Skin Irrit. 2, H315; Skin Sens. 1B, H317	

≥15 - ≤20% 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
≥7 - ≤10% 4-hydroxy-4-methylpentan-2-one	CAS:123-42-2 EC:204-626-7 Index:603-016-00-1	Flam. Liq. 3, H226 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 Specific Concentration Limits: C ≥ 10%: Eye Irrit. 2 H319	01-2119473975-21
≥5 - ≤7 % 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
≥5 - ≤7 % propylene carbonate	CAS:108-32-7 EC:203-572-1 Index:607-194-00-1	Eye Irrit. 2, H319	01-2119537232-48
≥3 - ≤5 % 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
≥0.5 - ≤1% heptan-2-one	CAS:110-43-0 EC:203-767-1 Index:606-024-00-3	Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H336	01-2119902391-49

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 immediately 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 ophthalmologist 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:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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. Fire fighting measures.

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

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.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

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
n-butyl acetate CAS: 123-86-4	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 724 mg/m ³ - 150 ppm; Short Term: 966 mg/m ³ - 200 ppm
	EU		Long Term: 241 mg/m ³ - 50 ppm; Short Term: 723 mg/m ³ - 150 ppm Behaviour Indicative 2019/1831/EU
	ACGIH		Long Term: 50 ppm; Short Term: 150 ppm Eye and URT irr
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 NORTHERN IRELAND	Long Term: 220 mg/m ³ - 50 ppm; Short Term: 441 mg/m ³ - 100 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
	EU		Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
4-hydroxy-4-methylpentan-2-one CAS: 123-42-2	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 241 mg/m ³ - 50 ppm; Short Term: 362 mg/m ³ - 75 ppm
	ACGIH		Long Term: 50 ppm URT and eye irr
2-methoxy-1-methylethyl acetate CAS: 108-65-6	EU		Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 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/m ³ - 50 ppm; Short Term: 548 mg/m ³ - 100 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/m ³ - 100 ppm; Short Term: 884 mg/m ³ - 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/m ³ - 100 ppm; Short Term: 552 mg/m ³ - 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

heptan-2-one
CAS: 110-43-0

ACGIH

Long Term: 50 ppm
Eye and skin irr

EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Long Term: 237 mg/m³ - 50 ppm; Short Term: 475 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

EU

Long Term: 238 mg/m³ - 50 ppm; Short Term: 475 mg/m³ - 100 ppm
Behaviour Indicative
2000/39/EC

EU

Identifies the possibility of significant uptake through the skin

Biological limit values

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: methylhippuric 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

ethylbenzene
CAS: 100-41-4

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

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 phenylglyoxylic 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

Predicted No Effect Concentration (PNEC) values

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

4-hydroxy-4-methylpentan-2-one
CAS: 123-42-2

Exposure Route: Fresh Water; PNEC Limit: 2 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1 mg/l

Exposure Route: Marine water; PNEC Limit: 0.2 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 9.06 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0.91 mg/kg

Exposure Route: Soil; PNEC Limit: 0.63 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 82 mg/l

2-methoxy-1-methylethyl acetate
CAS: 108-65-6

Exposure Route: Fresh Water; PNEC Limit: 0.635 mg/kg



propylene carbonate
CAS: 108-32-7

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
Exposure Route: Fresh Water; PNEC Limit: 0.9 mg/l

heptan-2-one
CAS: 110-43-0

Exposure Route: Marine water; PNEC Limit: 0.09 mg/l
Exposure Route: Soil; PNEC Limit: 0.81 mg/l
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 7400 mg/l
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 9 mg/l
Exposure Route: Fresh Water; PNEC Limit: 0.098 mg/l

Exposure Route: Marine water; PNEC Limit: 0.009 mg/l
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 982 mg/l
Exposure Route: Freshwater sediments; PNEC Limit: 1.89 mg/kg
Exposure Route: Marine water sediments; PNEC Limit: 0.189 mg/kg
Exposure Route: Soil; PNEC Limit: 0.321 mg/kg
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 12.5 mg/l

Derived No Effect Level (DNEL) values

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

4-hydroxy-4-methylpentan-2-one
CAS: 123-42-2

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Consumer: 3.4 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 11.8 mg/m³

Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 3.4 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 9.4 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 66.4 mg/m³

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

propylene carbonate
CAS: 108-32-7

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 70.5 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 20 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 20 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 17.4 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Consumer: 10 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Consumer: 10 mg/kg

Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 10 mg/kg



heptan-2-one
CAS: 110-43-0

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Professional: 1516 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 54.27 mg/kg dry weight (d.w.)

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 394.25 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Consumer: 23.32 mg/kg dry weight (d.w.)

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 84.31 mg/m³

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 23.32 mg/kg dry weight (d.w.)

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: Liquid

Colour: Colourless

Odour: N.A.

pH: Not Relevant

Kinematic viscosity: $\leq 20,5$ mm²/sec (40 °C)

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: 29.9 °C (85.8 °F)

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 0.95 g/cm³

Solubility in water: N.A.

Solubility in oil: N.A.

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

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: The product is classified Flam. Liq. 3 H226

Kinematic viscosity m²/s (40°C) $\leq 20,5$ mm²/sec (40 °C)

Viscosity: = 20.00 s - Method: ASTM D 1200 82 - Section: 3.00 mm

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 toxic	Not classified
	Based on available data, the classification criteria are not met
	ATEmix - Dermal : 7296.85 mg/kg bw
	ATEmix - Inhalation (Vapours) : 59.6206 mg/l
b) skin corrosion/irritati	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritati	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisati	The product is classified: Skin Sens. 1B(H317)
e) germ cell mutagenici	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenici	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxic	The product is classified: Repr. 2(H361)
h) STOT-single exposu	The product is classified: STOT SE 3(H335), STOT SE 3(H336)
i) STOT-repeated exposu	The product is classified: STOT RE 2(H373)
j) aspiration haza	The product is classified: Asp. Tox. 1(H304)

Toxicological information on main components of the mixture:

n-butyl acetate	a) acute toxic	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
xylene	a) acute toxic	LD50 Oral Mouse = 5627 mg/kg	
		LC50 Inhalation Rat = 6700 Ppm 4h	
		LD50 Skin Rabbit > 5000 mg/kg	
4-hydroxy-4-methylpentan-2-one	a) acute toxic	LD50 Oral Rat = 3002 mg/kg	
		LC0 Inhalation Rat >= 7.6 mg/l 4h	
		LD50 Skin Rat > 1875 mg/kg	
2-methoxy-1-methylethyl acetate	a) acute toxic	LD50 Oral Rat > 5000 mg/kg	
		LC0 Inhalation Rat > 2000 Ppm 3h	
		LD50 Skin Rabbit > 5000 mg/kg	

propylene carbonate	a) acute toxic	LD50 Oral Rat > 5000 mg/kg bw LD50 Skin Rabbit > 2000 mg/kg
	b) skin corrosion/irritati	Skin Irritant Rabbit Negative
	c) serious e damage/irritation	Eye Irritant Rabbit Yes
ethylbenzene	a) acute toxic	LD50 Oral Rat = 3500 mg/kg LD50 Skin Rabbit > 5000 mg/kg
heptan-2-one	a) acute toxic	LD50 Oral Rat = 1600 mg/kg LC50 Inhalation Vapour Rat > 16.7 mg/l 4h

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:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
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
		b) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) 44 mg/L 48 H OECD Test Guideline 202
		c) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) = 3 mg/L 72 H OECD Test Guideline 201
		d) Bacteria toxicity : IC50 Microorganisms Tetrahymena pyriformis = 356 mg 40 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
		b) Aquatic acute toxicity : IC50 Invertebrates Daphnia magna (Water flea) = mg/L 24 H
		c) Plant toxicity : EC0 Algae Pseudokirchneriella subcapitata (green algae) 0.44 mg/L 72 H
		d) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss (rainbow trou > 1.3 mg/L 56
		e) Plant toxicity : Algae Pseudokirchneriella subcapitata (green algae) = 4. mg/L 72 H
4-hydroxy-4-methylpentan-2-one	CAS: 123-42-2 - EINECS: 204-626-7 - INDEX: 603-016-00-1	a) Aquatic acute toxicity : LC50 Fish Oryzias latipes (Orange-red killifish) 100 mg/L 96 H
		b) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) 1000 mg/L 48 H

2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203- 603-9 - INDEX: 607-195-00-7	c) Plant toxicity : EC50 Algae Pseudokirchneriella subcapitata (green algae) 1000 mg/L 72 H a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) 1 mg/L 96 H
		b) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) 500 mg/L 48 H c) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) 1000 mg/L 96 H d) Aquatic chronic toxicity : NOEC Fish Oryzias latipes (Japanese medaka) 47.5 mg/L 14 D e) Aquatic chronic toxicity : NOEC Invertebrates Daphnia magna (Water fle >= 100 mg/L 21 D f) Plant toxicity : NOEC Algae Selenastrum capricornutum (green algae) 1000 mg/L 96 H
propylene carbonate	CAS: 108-32-7 - EINECS: 203- 572-1 - INDEX: 607-194-00-1	a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio (Carp) > 1000 mg/L 9 Tested according to Directive 92/69/EEC. b) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) 1000 mg/L 48h OECD Test Guideline 202 c) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus (gre algae) > 900 mg/L 72h OECD Test Guideline 201 d) Effects in sewage plants : EC10 Microorganisms Pseudomonas putida 7400 mg/L 16 h DIN 38 412 Part 8
heptan-2-one	CAS: 110-43-0 - EINECS: 203- 767-1 - INDEX: 606-024-00-3	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) 131 mg/L 96h b) Aquatic acute toxicity : ErC50 Algae Selenastrum capricornutum (gre algae) = 98.2 mg/L 72h

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

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT or PAINT RELATED MATERIAL

IATA-Technical name: PAINT or PAINT RELATED MATERIAL

IMDG-Technical name: PAINT or PAINT RELATED MATERIAL



14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Toxic ingredients quantity: 0.00

Very toxic ingredients quantity: 0.00

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR exempt:

ADR-Label: 3

ADR - Hazard identification number: -

ADR-Special Provisions: 163 367 650

ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA):

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3 A72 A192

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 163 223 367 955

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. 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. 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

Product belongs to category: P5c 5000

50000

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

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

SVHC Substances:

No data available

Dir. 2010/75/EC (VOC directive)

Volatile Organic compounds - VOCs = 72.03 %

Volatile Organic compounds - VOCs = 684.29 g/L

Estimated Total Content of Water 0.00 %

Estimated Total Solid Content 27.97 %

Storage Class (TRGS 510)

Storage Class (TRGS 510) Flammable liquid substances

Classification according to VbF

Classification according to VbF A II - Flash point 21 °C to 55 °C, at 15 °C not miscible in water

Mal-Code (Denmark)

Mal-Code (Denmark)	Mal Factor	Unit of Measure	Revision Status / Number	Regulatory Base
4 - 6	1.794	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.
H225	Highly flammable liquid and vapour.



H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, 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
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.7/2	Repr. 2	Reproductive toxicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, 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
--	---------------------------------

2.6/3	On basis of test data
3.2/2	Calculation method
3.3/2	Calculation method
3.4.2/1B	Calculation method
3.7/2	Calculation method
3.8/3	Calculation method
3.8/3	Calculation method
3.9/2	Calculation method
3.10/1	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).
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
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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.



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