SAFETY DATA SHEET

SPS HEKTOR

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

1.1. Product identifier

Trade name:	SPS HEKTOR
Product no.:	180002
Unique formula identifier (UFI):	95GN-7X1T-DNDD-794A

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

Relevant identified uses of the substance or mixture:	Graffiti removal Restricted to professional users.
Uses advised against :	None known.

1.3. Details of the supplier of the safety data sheet

▼*Company and address:*	**MPE International AB** Utmarksvägen 23 S-802 91 Gävle
Contact person:	MPEI
E-mail:	info@mpei.se
Revision:	18/01/2025
SDS Version:	5.0
Date of previous version:	10/12/2023 (4.0)

1.4. ▼Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 112 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 “First aid measures”.

SECTION 2: HAZARDS IDENTIFICATION

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226, Flammable liquid and vapour.
Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.
Skin Corr. 1; H314, Causes severe skin burns and eye damage.
Eye Dam. 1; H318, Causes serious eye damage.

STOT SE 3; H335, May cause respiratory irritation.
STOT SE 3; H336, May cause drowsiness or dizziness.
Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s):

Signal word: Danger

Hazard statement(s):
Flammable liquid and vapour. (H226)
May be fatal if swallowed and enters airways. (H304)
Causes severe skin burns and eye damage. (H314)
May cause respiratory irritation. (H335)
May cause drowsiness or dizziness. (H336)
Harmful to aquatic life with long lasting effects. (H412)

Precautionary statement(s):

General: -

Prevention: Do not breathe vapour/mist. (P260)
Wear eye protection/protective gloves/protective clothing. (P280)

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

Storage: Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal: Dispose of contents/container in accordance with local regulation
(P501)

Hazardous substances: Formic acid ... %
Solvent naphtha (petroleum), light arom.*
C9-11 Alkoholetoxilat (4EO)

Additional labelling:

UFI: 95GN-7X1T-DNDD-794A

▼Labelling of contents according to Detergents Regulation (EC) No 648/2004 as retained and amended in UK law:

≥ 30%
· Aromatic hydrocarbons

15% - 30%
· Non-ionic surfactants
5% - 15%
· Aliphatic hydrocarbons

2.3. Other hazards

▼*Additional warnings:*

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. ▼Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Formic acid ... %	CAS No.: 64-18-6 EC No.: 200-579-1 UK-REACH: Index No.:	20 - 30 %	Skin Corr. 1A, H314	[1]
Solvent naphtha (petroleum), light arom.*	CAS No.: 64742-95-6 EC No.: 918-668-5 UK-REACH: Index No.:	20 < 25 %	EUH066 Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411	[19]
C9-11 Alkoholetoxilat (4EO)	CAS No.: 68439-46-3 EC No.: UK-REACH: Index No.:	10 - 20 %	Eye Dam. 1, H318	[19]
Benzyl alcohol	CAS No.: 100-51-6 EC No.: 202-859-9 UK-REACH: Index No.: 603-057-00-5	5-10%	Acute Tox. 4, H302 Acute Tox. 4, H332	
2-Butoxyethanol	CAS No.: 111-76-2 EC No.: 203-905-0 UK-REACH: Index No.: 603-014-00-0	5-10%	Acute Tox. 4, H302 (ATE: 1200.00 mg/kg) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	[1]
1-Butylpyrrolidin-2-one	CAS No.: 3470-98-2 EC No.: 222-437-8 UK-REACH:	5 - 20 %	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	

	Index No.:			

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

▼Other information

[1] European occupational exposure limit.
[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:	In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
Inhalation:	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
Skin contact:	Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment. Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
Eye contact:	If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.
Ingestion:	IF SWALLOWED: Immediately call a POISON CENTER/doctor.

	Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should therefore be kept under medical attention for at least 48 hours.
Burns:	Rinse with water until pain stops then continue to rinse for 30 minutes.

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

This product contains substances that can cause chemical pneumonia if swallowed. Symptoms of chemical pneumonia may appear after several hours.
Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour.
In use may form flammable/explosive vapour-air mixture.
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.
Hazchem Code: ●3W

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.
Avoid direct contact with spilled substances.
Ensure adequate ventilation, especially in confined areas.
Avoid inhalation of vapours from spilled material.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ground and bond container and receiving equipment.
Use explosion-proof [electrical/lighting/ventilating] equipment.
Use non-sparking tools.
Take action to prevent static discharges.
It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.
Avoid contact during pregnancy and while nursing.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Take action to prevent static discharges.
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material: Always store in containers of the same

material as the original container.

Storage conditions: No specific requirements

Incompatible materials: Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Formic acid ... %
Long term exposure limit (8 hours) (ppm): 5
Long term exposure limit (8 hours) (mg/m³): 9,6

2-Butoxyethanol
Long term exposure limit (8 hours) (ppm): 25
Long term exposure limit (8 hours) (mg/m³): 123
Short term exposure limit (15 minutes) (ppm): 50
Short term exposure limit (15 minutes) (mg/m³): 246
Annotations:
BMVG = Biological Monitoring Guidance Value exists
Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

1-Butylpyrrolidin-2-one

Duration:	**Route of exposure:**	**DNEL:**
Long term – Systemic effects - General population	Dermal	5 mg/kg bw/day
Long term – Systemic effects - General population	Dermal	5 mg/kg
Long term – Systemic effects - Workers	Dermal	10 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	10 mg/kg
Long term – Systemic effects - General population	Inhalation	4.29 mg/m³
Long term – Systemic effects - General population	Inhalation	4,29 mg/m³
Long term – Systemic effects - Workers	Inhalation	24.1 mg/m³
Long term – Systemic effects - Workers	Inhalation	24,1 mg/m³
Long term – Systemic effects - General population	Oral	4 mg/kg bw/day
Long term – Systemic effects - General population	Oral	mg/kg
Short term – Systemic effects - General population	Oral	4 mg/kg bw/day
Short term – Systemic effects - General population	Oral	4 mg/kg

2-Butoxyethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	75 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	125 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	89 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	59 mg/m³
Long term – Systemic effects - General population	Inhalation	59 mg/m³
Long term – Systemic effects - Workers	Inhalation	98 mg/m³
Long term – Systemic effects - Workers	Inhalation	98 mg/m³
Short term – Local effects - General population	Inhalation	147 mg/m³
Short term – Local effects - General population	Inhalation	147 mg/m³
Short term – Local effects - Workers	Inhalation	246 mg/m³
Short term – Local effects - Workers	Inhalation	246 mg/m³
Short term – Systemic effects - General population	Inhalation	426 mg/m³
Short term – Systemic effects - General population	Inhalation	426 mg/m³
Short term – Systemic effects - Workers	Inhalation	1091 mg/m³
Long term – Systemic effects - General population	Oral	6.3 mg/kg bw/day
Long term – Systemic effects - General population	Oral	6,3 mg/kg bw/day
Short term – Systemic effects - General population	Oral	26.7 mg/kg bw/day
Short term – Systemic effects - General population	Oral	26,7 mg/kg bw/day
Short term – Systemic effects - Workers	Oral	1091 mg/m³

Benzyl alcohol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	4 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	8 mg/kg bw/day
Short term – Systemic effects - General population	Dermal	20 mg/kg bw/day
Short term – Systemic effects - General population	Dermal	28.5 mg/kg/dag
Short term – Systemic effects - Workers	Dermal	40 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	5.4 mg/m³
Long term – Systemic effects - Workers	Inhalation	22 mg/m³
Short term – Systemic effects - General population	Inhalation	27 mg/m³
Short term – Systemic effects - Workers	Inhalation	110 mg/m³
Long term – Systemic effects - General population	Oral	4 mg/kg bw/day
Short term – Systemic effects - General population	Oral	20 mg/kg bw/day

C9-11 Alkoholetoxilat (4EO)

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1250 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	2080 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	87 mg/m³
Long term – Systemic effects - Workers	Inhalation	294 mg/m³
Long term – Systemic effects - General population	Oral	25 mg/kg bw/day

Formic acid ... %

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	3 mg/m³
Long term – Local effects - Workers	Inhalation	9.5 mg/m³
Long term – Systemic effects - General population	Inhalation	3 mg/m³
Long term – Systemic effects - Workers	Inhalation	9.5 mg/m³

Solvent naphtha (petroleum), light arom.*

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	11 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	25 mg/kg bw/day
Long term – Local effects - General population	Inhalation	178.57 mg/m³
Long term – Local effects - Workers	Inhalation	837.5 mg/m³
Long term – Systemic effects - General population	Inhalation	410 µg/m³
Long term – Systemic effects - General population	Inhalation	32 mg/m3
Long term – Systemic effects - Workers	Inhalation	1.9 mg/m³
Long term – Systemic effects - Workers	Inhalation	100 mg/m³
Short term – Local effects - General population	Inhalation	640 mg/m³
Short term – Local effects - Workers	Inhalation	1066.67 mg/m³
Short term – Systemic effects - General population	Inhalation	1152 mg/m³
Short term – Systemic effects - Workers	Inhalation	1286.4 mg/m³
Long term – Systemic effects - General population	Oral	11 mg/kg bw/day

PNEC

1-Butylpyrrolidin-2-one

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		4 mg/L
Freshwater		4 mg/l
Freshwater sediment		20.168 mg/kg
Freshwater sediment		29,6 mg/kg
Intermittent release (freshwater)		1 mg/L
Intermittent release (marine water)		100 µg/L

Marine water		400 µg/L
Marine water		0,4 mg/l
Marine water sediment		2.017 mg/kg
Marine water sediment		2,96 mg/kg
Sewage treatment plant		30.62 mg/L
Sewage treatment plant		30,62 mg/l
Soil		1.68 mg/kg
Soil		3,57 mg/kg

2-Butoxyethanol

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		8.8 mg/L
Freshwater		8,8 mg/l
Freshwater sediment		34.6 mg/kg
Freshwater sediment		34,6 mg/kg
Intermittent release (freshwater)		26.4 mg/L
Marine water		880 µg/L
Marine water		0,88 mg/l
Marine water sediment		3.46 mg/kg
Marine water sediment		3,46 mg/kg
Predators		20 mg/kg
Sewage treatment plant		463 mg/L
Sewage treatment plant		463 mg/l
Soil		2.33 mg/kg
Soil		2,33 mg/kg

Benzyl alcohol

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		1-1.02 mg/L
Freshwater sediment		5.27 mg/kg
Intermittent release (freshwater)		2.3 mg/L
Marine water		100-102 µg/L
Marine water sediment		527 µg/kg
Sewage treatment plant		39 mg/L
Soil		456 µg/kg

C9-11 Alkoholetoxilat (4EO)

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		103.79 µg/L
Freshwater sediment		13.7 mg/kg

Intermittent release (freshwater)		14 µg/L
Marine water		103.79 µg/L
Marine water sediment		13.7 mg/kg
Sewage treatment plant		1.4 mg/L
Soil		1 mg/kg

Formic acid ... %

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		2 mg/L
Freshwater sediment		13.4 mg/kg
Intermittent release (freshwater)		1 mg/L
Marine water		200 µg/L
Marine water sediment		1.34 mg/kg
Sewage treatment plant		7.2 mg/L
Soil		1.5 mg/kg

Solvent naphtha (petroleum), light arom.*

Route of exposure:	**Duration of Exposure:**	**PNEC:**

8.2. ▼Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations: Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios: There are no exposure scenarios implemented for this product.

Exposure limits: Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures: The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Ensure that eyewash stations and safety showers are located within easy reach. Apply standard precautions during use of the product. Avoid inhalation of vapours.

▼*Hygiene measures:* In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure: Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally: Wash contaminated clothing before reuse. Use only UKCA marked protective equipment.

Respiratory Equipment:
No specific requirements

Skin protection:

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,5	> 480	EN374-2, EN374-3, EN388	
Nitrile	0,5	> 480	EN374-2, EN374-3, EN388	

Eye protection:

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: Colourless, Transparent

Odour / Odour threshold: Characteristic

pH: 1

▼*Density (g/cm³):* 1

Kinematic viscosity: No data available

Particle characteristics: Not applicable - product is a liquid

Phase changes

Melting point/Freezing point (°C): No data available

Softening point/range (°C): Does not apply to liquids.

Boiling point (°C):	No data available
Vapour pressure:	No data available
Relative vapour density:	No data available
Decomposition temperature (°C):	No data available

Data on fire and explosion hazards

Flash point (°C):	41 °C
Flammability (°C):	The material is ignitable.
Auto-ignition temperature (°C):	No data available
▼*Lower and upper explosion limit (% v/v):*	No relevant or available data due to the nature of the product.

Solubility

Solubility in water:	Completely soluble
n-octanol/water coefficient (LogKow):	No data available
▼*Solubility in fat (g/L):*	No relevant or available data due to the nature of the product.

9.2. Other information

Sensitivity to shock:	No
Evaporation rate (n-butylacetate = 100):	No data available
▼*VOC (g/l):*	781
Oxidizing properties:	Not applicable
Other physical and chemical parameters:	No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No data available.

10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
Avoid static electricity.
Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products
Thermal decomposition may produce corrosive vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	Formic acid ... %
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	730 mg/kg

Product/substance	Formic acid ... %
Species:	Mouse
Route of exposure:	Dermal
Test:	LD50
Result:	940 mg/kg

Product/substance	Formic acid ... %
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	7,4 mg/l

Product/substance	Solvent naphtha (petroleum), light arom.*
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	3492 mg/kg

Product/substance	Solvent naphtha (petroleum), light arom.*
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	> 3160 mg/kg

Product/substance	Solvent naphtha (petroleum), light arom.*
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	> 6193 mg/m3

Product/substance	C9-11 Alkoholetoxilat (4EO)
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	> 5000 mg/kg

Product/substance	C9-11 Alkoholetoxilat (4EO)
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	> 2000 mg/kg

Product/substance	Benzyl alcohol
Species:	Rat

Route of exposure:	Oral
Test:	LD50
Result:	1620 mg/kg

Product/substance	Benzyl alcohol
Test method:	OECD 403
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	> 4,178 mg/l

Product/substance	Benzyl alcohol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	2000 mg/kg bw

Product/substance	2-Butoxyethanol
Species:	Guinea pig
Route of exposure:	Oral
Test:	LD50
Result:	1414 mg/kg bw

Product/substance	2-Butoxyethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	435 mg/kg bw

Product/substance	2-Butoxyethanol
Species:	Guinea pig
Route of exposure:	Inhalation
Test:	LC0
Result:	700 ppm

Product/substance	1-Butylpyrrolidin-2-one
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	300-2000 mg/kg

Product/substance	1-Butylpyrrolidin-2-one
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	> 2000 mg/kg

▼Skin corrosion/irritation

Product/substance	Benzyl alcohol
Test method:	OECD 404
Duration:	No data available.

Causes severe skin burns and eye damage.

▼Serious eye damage/irritation

Product/substance	Solvent naphtha (petroleum), light arom.*
Test method:	OECD 405
Duration:	No data available.

Product/substance	Benzyl alcohol
Test method:	OECD 405
Duration:	No data available.

Causes serious eye damage.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation.
May cause drowsiness or dizziness.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

2-Butoxyethanol has been classified by IARC as a group 3 carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product/substance	Formic acid ... %
Test method:	LC50
Species:	Fish, Danio rerio
Duration:	No data available.
Result:	130 mg/l

Product/substance	Formic acid ... %
Test method:	EC50
Species:	Crustacean, Daphnia magna
Duration:	No data available.
Result:	365 mg/l

Product/substance	Solvent naphtha (petroleum), light arom.*
Test method:	LL50
Species:	Fish, Oncorhynchus mykiss
Duration:	No data available.
Result:	9,2 mg/l

Product/substance	Solvent naphtha (petroleum), light arom.*
Test method:	ErL50
Species:	Algae, Pseudokirchneriella subcapitata
Duration:	No data available.
Result:	2,9 mg/l

Product/substance	Solvent naphtha (petroleum), light arom.*
Test method:	EL50
Species:	Crustacean, Daphnia magna
Duration:	No data available.
Result:	3,2 mg/l

Product/substance	C9-11 Alkoholetoxilat (4EO)
Test method:	LC50
Species:	Fish, Oncorhynchus mykiss
Duration:	No data available.
Result:	> 1 - 10 mg/l

Product/substance	C9-11 Alkoholetoxilat (4EO)
Test method:	EC50
Species:	Algae
Duration:	No data available.
Result:	> 1 - 10 mg/l

Product/substance	C9-11 Alkoholetoxilat (4EO)
Test method:	EC50
Species:	Crustacean, Daphnia magna
Duration:	No data available.
Result:	> 1 - 10 mg/l

Product/substance	Benzyl alcohol
Test method:	LC50
Species:	Fish, Pimephales promelas
Duration:	No data available.

Result:	460 mg/l

Product/substance	Benzyl alcohol
Test method:	EC50
Species:	Algae, Pseudokirchneriella subcapitata
Duration:	No data available.
Result:	770 mg/l

Product/substance	Benzyl alcohol
Test method:	EC50
Species:	Crustacean, Daphnia magna
Duration:	No data available.
Result:	230 mg/l

Product/substance	2-Butoxyethanol
Test method:	LC50
Species:	Fish, Oncorhynchus mykiss
Duration:	96 hours
Result:	1474 mg/l

Product/substance	2-Butoxyethanol
Species:	Algae, Pseudokirchneriella subcapitata
Duration:	72 hours
Test:	EC50
Result:	1840 mg/l

Product/substance	2-Butoxyethanol
Species:	Crustacean, Daphnia magna
Duration:	48 hours
Test:	EC50
Result:	1550 mg/l

Product/substance	1-Butylpyrrolidin-2-one
Test method:	LC50
Species:	Fish, Oncorhynchus mykiss
Duration:	No data available.
Result:	> 100 mg/l

Product/substance	1-Butylpyrrolidin-2-one
Test method:	EC50
Species:	Algae, Pseudokirchneriella subcapitata
Duration:	No data available.
Result:	130 mg/l

Product/substance	1-Butylpyrrolidin-2-one
Test method:	EC50
Species:	Crustacean, Daphnia magna
Duration:	No data available.
Result:	> 100 mg/l

Harmful to aquatic life with long lasting effects.

12.2. ▼Persistence and degradability

Product/substance	Formic acid ... %
Result:	100 %

Conclusion:	-
Test:	OECD 301 C

Product/substance	Solvent naphtha (petroleum), light arom.*
Result:	78 %
Conclusion:	-

Product/substance	Benzyl alcohol
Result:	92 - 96 %
Conclusion:	-
Test:	OECD 301 C

Product/substance	2-Butoxyethanol
Result:	95 %
Conclusion:	-
Test:	OECD 301 E

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. ▼Bioaccumulative potential

Product/substance	Formic acid ... %
BCF:	0,22
Conclusion:	-

Product/substance	2-Butoxyethanol
BCF:	< 3
Conclusion:	-

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

▼Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)

To the extent the material has not been subject to regular tests of peroxide formation the waste shall be treated as explosive waste.
HP 3 - Flammable
HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 6 - Acute toxicity
HP 8 – Corrosive
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01 29* Detergents containing dangerous substances

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Formic acid ... % , Solvent naphtha (petroleum), light arom.*)	Transport hazard class: 8 Label: 8+3 Classification code: CF1 	II	No	Limited quantities: 1 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Formic acid ... % , Solvent naphtha (petroleum), light arom.*)	Transport hazard class: 8 Label: 8+3 Classification code: CF1 	II	No	Limited quantities: 1 L EmS: F-E S-C See below for additional information.

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
IATA	UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Formic acid ... % , Solvent naphtha (petroleum), light arom.*)	Transport hazard class: 8 Label: 8+3 Classification code: CF1 	II	No	See below for additional information.

* Packing group

** Environmental hazards

▼Additional information

This product is within scope of the regulations of transport of dangerous goods.
ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
Hazchem Code: ●3W

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

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

Restrictions for application:	Restricted to professional users. People under the age of 18 shall not be exposed to this product. Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.
Demands for specific education:	No specific requirements.
Control of Major Accident Hazards (COMAH) - Categories / dangerous substances:	P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes
UK-REACH, Annex XVII:	Solvent naphtha (petroleum), light arom.* is subject to UK-REACH restrictions (entry 40).
▼*Labelling of contents according to Detergents*	≥ 30%

Regulation (EC) No 648/2004 as retained and amended in UK law:	· Aromatic hydrocarbons 15% - 30% · Non-ionic surfactants 5% - 15% · Aliphatic hydrocarbons
▼*Additional information:*	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Sources:	The Management of Health and Safety at Work Regulations 1999. The Health and Safety at Work etc. Act 1974 Regulations 2013. Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. Control of Major Accident Hazards (COMAH) Regulations 2015. Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

EUH066, Repeated exposure may cause skin dryness or cracking.
H226, Flammable liquid and vapour.
H302, Harmful if swallowed.
H304, May be fatal if swallowed and enters airways.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
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.
H411, Toxic to aquatic life with long lasting effects.

▼Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended

in UK law.
The classification of the substance/mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Safety person

▼Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product.
Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en