



Proxanil

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.
Issue date: 18/05/2010 Revision date: 04/03/2025 Supersedes: 18/09/2024 Version: 16.0

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

1.1. Product identifier

Product form : Mixture
Name : CYMOXANIL+PROPAMOCARB-HYDROCHLORIDE(50+400)SC
Trade name : Proxanil

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : Plant protection products
Use of the substance/mixture : Fungicide

1.2.2. Uses advised against

Restrictions on use : No known evidence against using

1.3. Details of the supplier of the safety data sheet

Arysta LifeScience Benelux Srl
Rue de Renory 26/1
B-4102 Ougrée
Belgium
T +32 (0)4 385 97 11
EUR-SDS.info@upl-ltd.com - <http://www.upl-ltd.com/be>

1.4. Emergency telephone number

Emergency number : Rest of the world (English): +44 1865 407333
Europe (English): +44(0)1235 239670
112 (European Emergency Number)

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Cardiff	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB Newcastle	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	Only for healthcare professionals

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP (SI 2019:720 as amended)

Corrosive to metals, Category 1	H290
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 2	H361fd
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Suspected of damaging fertility or the unborn child. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GB CLP)



Signal word (GB CLP)

: Warning

Hazard statements (GB CLP)

: H290 - May be corrosive to metals.
H317 - May cause an allergic skin reaction.
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GB CLP)

: P201 - Obtain special instructions before use.
P234 - Keep only in original packaging.
P261 - Avoid breathing spray.
P280 - Wear eye protection, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P308+P313 - IF exposed or concerned: Get medical advice or attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P391 - Collect spillage.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

Component	
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Propane-1,2-diol (57-55-6), Propamocarb HCl (25606-41-1), Citric acid (77-92-9), Phosphoric acid (7664-38-2), Sodium hydroxide (1310-73-2), Cymoxanil (57966-95-7), 1,2-benzisothiazol-3(2H)-one (2634-33-5)
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Propane-1,2-diol (57-55-6), Propamocarb HCl (25606-41-1), Citric acid (77-92-9), Phosphoric acid (7664-38-2), Sodium hydroxide (1310-73-2), Cymoxanil (57966-95-7), 1,2-benzisothiazol-3(2H)-one (2634-33-5)
Component	
Substance(s) not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP	Propamocarb HCl(25606-41-1), Citric acid(77-92-9), Cymoxanil(57966-95-7), Propane-1,2-diol(57-55-6), Phosphoric acid(7664-38-2), 1,2-benzisothiazol-3(2H)-one(2634-33-5), Sodium hydroxide(1310-73-2)

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
Propamocarb HCl	CAS-No.: 25606-41-1 EC-No.: 247-125-9	35- 42	Skin Sens. 1, H317
Citric acid	CAS-No.: 77-92-9 EC-No.: 201-069-1 UK Index-No.: 607-750-00-3	< 5	STOT SE 3, H335 Eye Irrit. 2, H319
cymoxanil (ISO)	CAS-No.: 57966-95-7 EC-No.: 261-043-0 UK Index-No.: 616-035-00-5	2.5 – 10	Repr. 2, H361fd Acute Tox. 4 (Oral), H302 (ATE=360 mg/kg bodyweight) STOT RE 2, H373 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
Propane-1,2-diol substance with workplace exposure limit(s)	CAS-No.: 57-55-6 EC-No.: 200-338-0	< 5	Not classified
Phosphoric acid substance with workplace exposure limit(s) (Note B)	CAS-No.: 7664-38-2 EC-No.: 231-633-2 UK Index-No.: 015-011-00-6	< 0.1	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 (ATE=1250 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 UK Index-No.: 613-088-00-6	< 0.1	Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.21 mg/l/4h) Acute Tox. 4 (Oral), H302 (ATE=450 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
Sodium hydroxide substance with workplace exposure limit(s)	CAS-No.: 1310-73-2 EC-No.: 215-185-5 UK Index-No.: 011-002-00-6	< 0.002	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Phosphoric acid	CAS-No.: 7664-38-2 EC-No.: 231-633-2 UK Index-No.: 015-011-00-6	(10 ≤ C < 25) Skin Irrit. 2; H315 (10 ≤ C < 25) Eye Irrit. 2; H319 (25 ≤ C ≤ 100) Skin Corr. 1B; H314
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 UK Index-No.: 613-088-00-6	(0.036 ≤ C ≤ 100) Skin Sens. 1A; H317
Sodium hydroxide	CAS-No.: 1310-73-2 EC-No.: 215-185-5 UK Index-No.: 011-002-00-6	(0.5 ≤ C < 2) Skin Irrit. 2; H315 (0.5 ≤ C < 2) Eye Irrit. 2; H319 (2 ≤ C < 5) Skin Corr. 1B; H314 (5 ≤ C ≤ 100) Skin Corr. 1A; H314

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Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move victim out of danger zone. Do not leave affected person unattended.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Remove all contaminated clothing and footwear. Wash skin with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Fire may produce irritating and/or toxic vapours, mists or other products of combustion.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Wear self-contained breathing apparatus and protective suit (see section 8).
Other information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Only qualified personnel equipped with suitable protective equipment may intervene. See section 8 of the SDS for more information on personal protective equipment.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade).

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump).
Other information : Dispose of materials or solid residues at an authorized site. Keep in suitable, closed containers for disposal. Keep contaminated washing water and dispose of appropriately. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Do not discharge into drains or rivers. Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose of in accordance with relevant local regulations. Discharging into rivers and drains is forbidden.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing. Do not allow to enter into surface water or drains.
Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Always wash hands after handling the product. Separate working clothes from town clothes. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Containers which are opened should be properly resealed and kept upright to prevent leakage.
Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place.
Incompatible materials : Metals.
Storage temperature : Protect from freezing

7.3. Specific end use(s)

refer to label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Propane-1,2-diol (57-55-6)	
United Kingdom - Occupational Exposure Limits	
Local name	Propane-1,2-diol
WEL TWA (OEL TWA)	10 mg/m ³ particulates
	474 mg/m ³ total vapour and particulates
	150 ppm total vapour and particulates

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Propane-1,2-diol (57-55-6)

Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
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Phosphoric acid (7664-38-2)

United Kingdom - Occupational Exposure Limits

Local name	Orthophosphoric acid
WEL TWA (OEL TWA)	1 mg/m ³
WEL STEL (OEL STEL)	2 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Sodium hydroxide (1310-73-2)

United Kingdom - Occupational Exposure Limits

Local name	Sodium hydroxide
WEL STEL (OEL STEL)	2 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. (EN ISO 16321-1:2022)

8.2.2.2. Skin protection

Skin and body protection:

Wear standard coveralls and Category 3 Type 4 suit (EN 13688 + EN 14605:2005 + A1:2009).

If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Hand protection:

Protective gloves. (ISO 374-1:2016/Type A)

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Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0.4	3 (> 0.65)	EN ISO 374-1/A1

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Half-face mask (EN 405)

Respiratory protection			
Device	Filter type	Condition	Standard
Half-face mask	ABEK	Vapour protection	EN 140, EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous. Opaque.
Colour	: Grey.
Odour	: Characteristic.
Odour threshold	: Not applicable
	: Not applicable
pH	: 2.27 (CIPAC MT 75.3)
pH solution	: 3.17 (1%) (CIPAC MT 75.3)
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: > 103 °C Test method EU A.9
Relative evaporation rate (butylacetate=1)	: Not applicable
Relative evaporation rate (ether=1)	: Not applicable
Explosive limits	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Relative vapour density at 20°C	: Not available
Relative density	: Not available
Density	: 1.085 g/ml (20°C) (CIPAC 3.3.2)
Solubility	: Not applicable.
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: > 430 °C Test method EU A.15
Decomposition temperature	: Not applicable
Viscosity, kinematic	: Non-Newtonian liquid. Not applicable
Viscosity, dynamic	: 900 cP (20°C) (ISO 3219 Brookfield)
Explosive properties	: Product is not explosive, Test method EU A.14
Oxidising properties	: Non oxidizing. Test method EU A.17.

9.2. Other information

Particle characteristics	: Not applicable
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

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LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 4000 mg/kg
LC50 Inhalation - Rat	> 5 mg/l/4h

Propane-1,2-diol (57-55-6)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 44.9 mg/l air

Propamocarb HCl (25606-41-1)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5 mg/l/4h

Citric acid (77-92-9)

LD50 oral	5400 mg/kg (mouse)
LD50 dermal rat	> 2000 mg/kg

Phosphoric acid (7664-38-2)

LD50 oral rat	1250 mg/kg Merck data
LD50 dermal	1071 mg/kg

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Sodium hydroxide (1310-73-2)	
LD50 oral rat	140 – 340 mg/kg
LD50 dermal rabbit	1350 mg/kg
Cymoxanil (57966-95-7)	
LD50 oral rat	360 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.6 mg/l Air
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LD50 oral rat	300 – 2000 mg/kg bodyweight RAC Endpoint
LD50 dermal rat	> 2000 mg/kg bodyweight OECD Guideline 402; RAC Endpoint
LC50 Inhalation - Rat (Dust/Mist)	0.05 – 0.5 mg/l/4h RAC Endpoint
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 2.27 (CIPAC MT 75.3)
Propane-1,2-diol (57-55-6)	
pH	7
Propamocarb HCl (25606-41-1)	
pH	Not applicable
Citric acid (77-92-9)	
pH	1.85 (5%)
Sodium hydroxide (1310-73-2)	
pH	13
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 2.27 (CIPAC MT 75.3)
Propane-1,2-diol (57-55-6)	
pH	7
Propamocarb HCl (25606-41-1)	
pH	Not applicable
Citric acid (77-92-9)	
pH	1.85 (5%)
Sodium hydroxide (1310-73-2)	
pH	13
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Cymoxanil (57966-95-7)	
Additional information	No evidence of carcinogenic potential
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child.
Cymoxanil (57966-95-7)	
NOAEL, rat	10.5 mg/kg bw/day

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1,2-benzisothiazol-3(2H)-one (2634-33-5)	
NOAEL (animal/female, F1)	56.6 mg/kg bodyweight female (ratReproductionFertility; EPA OPPTS 870.3800
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Citric acid (77-92-9)	
STOT-single exposure	May cause respiratory irritation.
Cymoxanil (57966-95-7)	
Additional information	Not classified
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Propane-1,2-diol (57-55-6)	
NOAEL (subchronic, oral, animal/male, 90 days)	443 mg/kg bodyweight Cat;male
Cymoxanil (57966-95-7)	
STOT-repeated exposure	May cause damage to organs (blood, thymus) through prolonged or repeated exposure.
Additional information	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Proxanil	
Viscosity, kinematic	Non-Newtonian liquid. Not applicable
Propane-1,2-diol (57-55-6)	
Viscosity, kinematic	53088.803 mm²/s
Propamocarb HCl (25606-41-1)	
Viscosity, kinematic	Not applicable

Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

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LC50 - Fish	1000 mg/l (96h Cyprinus carpio)
EC50 - Crustacea	590 mg/l (48h Daphnia magna)
ErC50 algae	190 mg/l (72h Selenastrum capricornutum)
Propane-1,2-diol (57-55-6)	
LC50 - Fish	> 100 mg/l
LC50 fish	51400 mg/l Pimephales promelas
EC50 - Crustacea	> 100 mg/l
EC50 72h - Algae	24200 mg/l Pseudokirchneriella subcapitata (Raphidocelis subcapitata, Selenastrum capricornutum)

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Propane-1,2-diol (57-55-6)	
EC50 72h - Algae	19300 mg/l <i>Skeletonema costatum</i>
EC50 96h algae	19000 mg/l <i>Pseudokirchneriella subcapitata</i> (<i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 96h - Algae	19100 mg/l <i>Skeletonema costatum</i>
ErC50 algae	> 100 mg/l
NOEC chronic crustacea	1000 mg/l
NOEC chronic algae	1000 mg/l
Propamocarb HCl (25606-41-1)	
LC50 - Fish	> 92 mg/l (96h <i>Lepomis macrochirus</i>)
EC50 - Crustacea	> 100 mg/l (48h <i>Daphnia magna</i>)
ErC50 algae	> 85 mg/l (72h <i>Pseudokirchneriella subcapitata</i>)
NOEC chronic fish	6.3 mg/l (32d <i>Pimephales promelas</i>)
NOEC chronic crustacea	12.3 mg/l (21d <i>Daphnia magna</i>)
EbC50, <i>Lemna gibba</i> , Chronic	> 18 mg/l (14 days)
Citric acid (77-92-9)	
LC50 - Fish	440 mg/l (48 Hours, <i>Leuciscus idus melanotus</i>)
EC50 - Crustacea	1535 mg/l (24 Hours, <i>Daphnia magna</i>)
ErC50 algae	425 mg/l
Phosphoric acid (7664-38-2)	
EC50 - Crustacea	> 100 mg/l <i>Daphnia magna</i>
EC50 72h - Algae	> 100 mg/l <i>Desmodesmus subspicatus</i>
Sodium hydroxide (1310-73-2)	
LC50 - Fish	35 – 189 mg/l
EC50 - Crustacea	40.4 mg/l <i>Ceriodaphnia</i> sp.
Cymoxanil (57966-95-7)	
LC50 - Fish	29 mg/l (96h <i>Lepomis macrochirus</i>)
EC50 - Crustacea	27 mg/l (48h <i>Daphnia magna</i>)
ErC50 algae	0.122 mg/l (<i>Anabaena flos-aquae</i>)
ErC50 other aquatic plants	> 0.7 mg/l (14d <i>Lemna</i> <i>Gibba</i>)
NOEC chronic crustacea	0.067 mg/l (21d <i>Daphnia magna</i>)
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LC50 - Fish	2.18 mg/l/96h ((OECD 203 method), <i>Oncorhynchus mykiss</i>)
LC50 fish	2.15 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)
EC50 - Crustacea	2.94 mg/l/48h ((OECD 202 method), <i>Daphnia magna</i>)
EC50 <i>Daphnia</i>	2.9 mg/l <i>Daphnia magna</i>
ErC50 algae	0.11 mg/l/72h ((OECD 201 method), <i>Selenastrum capricornutum</i>)
NOEC chronic crustacea	1.7 mg/l/ 21 days (OECD 211; <i>Daphnia</i>)
NOEC chronic algae	0.0403 mg/l

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

12.2. Persistence and degradability

Proxanil	
Persistence and degradability	Rapidly degradable
Propane-1,2-diol (57-55-6)	
Persistence and degradability	Readily biodegradable, 81.7 - 106.8 % biological degradation (28 days), (OECD 301F method), 95.8 % biological degradation (DOC reduction) (64 days), 90.6 % biological degradation (CO ₂ formation) (64 days), (OECD 306 method).
Biochemical oxygen demand (BOD)	0.86 g O ₂ /g substance BOD ₅
Chemical oxygen demand (COD)	1.585 g O ₂ /g substance
Propamocarb HCl (25606-41-1)	
Persistence and degradability	Readily biodegradable.
Citric acid (77-92-9)	
Persistence and degradability	Readily biodegradable.
Phosphoric acid (7664-38-2)	
Persistence and degradability	Not established.
Sodium hydroxide (1310-73-2)	
Persistence and degradability	Not rapidly degradable
Cymoxanil (57966-95-7)	
Persistence and degradability	Not readily biodegradable.
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Proxanil	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Propane-1,2-diol (57-55-6)	
BCF - Fish [1]	0.09 (calculated value)
Partition coefficient n-octanol/water (Log Pow)	-1.07
Bioaccumulative potential	Low bioaccumulation potential.
Propamocarb HCl (25606-41-1)	
BCF - Fish [1]	3.2 – 4.7 mg/g
Partition coefficient n-octanol/water (Log Pow)	-1.36
Bioaccumulative potential	There is no bioaccumulation.
Phosphoric acid (7664-38-2)	
Bioaccumulative potential	Not established.
Cymoxanil (57966-95-7)	
Partition coefficient n-octanol/water (Log Pow)	0.67 (pH=7; 20°C)
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
Partition coefficient n-octanol/water (Log Pow)	0.7 (20 °C)

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12.4. Mobility in soil

Proxanil

Surface tension	28.4 mN/m (25°C) Test method EU A.5
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Propane-1,2-diol (57-55-6)

Surface tension	71.6 mN/m
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Cymoxanil (57966-95-7)

Surface tension	68.7 mN/m (19°C)
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12.5. Results of PBT and vPvB assessment

Component

Propane-1,2-diol (57-55-6)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Propamocarb HCl (25606-41-1)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Citric acid (77-92-9)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Phosphoric acid (7664-38-2)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Sodium hydroxide (1310-73-2)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Cymoxanil (57966-95-7)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
1,2-benzisothiazol-3(2H)-one (2634-33-5)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII

12.6. Other adverse effects

Phosphoric acid (7664-38-2)

Other information	Avoid release to the environment.
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Proxanil

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of in accordance with relevant local regulations. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Dispose of contents/container in accordance with licensed collector's sorting instructions. Discharging into rivers and drains is forbidden.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Empty remaining contents. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. When not empty dispose of this container at hazardous or special waste collection point.
Additional information	: Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Recycle or dispose of in compliance with current legislation.
Ecological waste information	: Avoid release to the environment.
European List of Waste (LoW, EC 2000/532)	: 02 01 08* - agrochemical waste containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number		
UN 1760	UN 1760	UN 1760
14.2. UN proper shipping name		
CORROSIVE LIQUID, N.O.S. (Propamocarb HCl, Cymoxanil)	CORROSIVE LIQUID, N.O.S. (Propamocarb HCl, Cymoxanil)	Corrosive liquid, n.o.s. (Propamocarb HCl, Cymoxanil)
Transport document description		
UN 1760 CORROSIVE LIQUID, N.O.S. (Propamocarb HCl, Cymoxanil), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S. (Propamocarb HCl, Cymoxanil), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1760 Corrosive liquid, n.o.s. (Propamocarb HCl, Cymoxanil), 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment: True	Dangerous for the environment: True Marine pollutant: Yes	Dangerous for the environment: True
No supplementary information available		

14.6. Special precautions for user

Overland transport

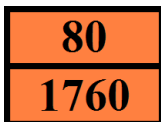
Classification code (ADR)	: C9
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19

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Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP1, TP28
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code : E
EAC code : 2X

Transport by sea

Transport regulations (IMDG) : Not subject
Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW2
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

Transport regulations (IATA) : Not subject
PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3, A803
ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 274
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

UK REACH Annex XVII (Restriction List)

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

This product contains no substance(s) listed on the UK REACH Candidate List (SVHC) above the 0.1% level of disclosure

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information : Directive 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment in Category Chronic 2

GB PIC regulation (Prior Informed Consent)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

15.1.2. Other Information

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes (UK):

This sheet was updated (refer to the date at the top of this page).

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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Full text of H- and EUH-statements:	
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Met. Corr. 1	H290	
Skin Sens. 1	H317	
Repr. 2	H361fd	
Aquatic Chronic 2	H411	

Safety Data Sheet (SDS), UK

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.