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

1.1 Product identifier

Trade name : BioPhen Xtra

Product code : 62608082

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

Use of the Substance/Mixture : Disinfectants

1.3 Details of the supplier of the safety data sheet

Supplier : Antec International Limited
Windham Road
Chilton Industrial Estate
CO10 2XD Sudbury / Suffolk, United Kingdom

Telephone : +4922188852288

E-mail address of person responsible for the SDS : infosds@lanxess.com

1.4 Emergency telephone number

+442038850382 mention CCN1001748

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (GB CLP)

Corrosive to metals, Category 1	H290: May be corrosive to metals.
Skin corrosion, Sub-category 1C	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (GB CLP)

Hazard pictograms :

Signal word : Danger

Hazard statements :
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Hazardous components which must be listed on the label:

acetic acid
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
chlorocresol
2-phenylphenol (ISO)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
acetic acid	64-19-7 200-580-7 607-002-00-6	Flam. Liq. 3; H226 Skin Corr. 1A; H314 Eye Dam. 1; H318	>= 20 - < 25
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	85536-14-7 287-494-3	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 20 - < 25
chlorocresol	59-50-7 200-431-6 604-014-00-3	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT SE 3; H335; Respiratory system Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M-Factor Aquatic Acute: 1	>= 10 - < 20
2-phenylphenol (ISO)	90-43-7 201-993-5 604-020-00-6	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335; Respiratory system Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor Aquatic Chronic: 1	>= 10 - < 20
tetrasodium ethylene diamine tetraacetate	64-02-8 200-573-9 607-428-00-2	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Dam. 1; H318 STOT RE 2; H373	>= 1 - < 3

Specific Concentration limits (Regulation EC) No 1272/2008)

Chemical name	CAS-No. EC-No.	Classification	Concentration (%)
acetic acid	64-19-7 200-580-7	Skin Corr.1A; H314 Skin Corr.1B; H314 Skin Irrit.2; H315	>= 90 % 25 - < 90 % 10 - < 25 %

		Eye Irrit.2; H319 Skin Corr.1A; H314 Skin Corr.1B; H314 Skin Irrit.2; H315 STOT RE2; H319	10 - < 25 %

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

If inhaled : If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Immediately flush eye(s) with plenty of water.
Continue rinsing eyes during transport to hospital.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon dioxide (CO2)
Carbon monoxide
Sulphur oxides
Halogenated compounds
Nitrogen oxides (NOx)
Metal oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.
For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Do not smoke. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Smoking, eating and drinking should be prohibited in the application area. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	General industrial hygiene practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Further information on storage stability	:	Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s)	:	No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
acetic acid	64-19-7	TWA	10 ppm 25 mg/m3	2017/164/EU
Further information	Indicative			
		STEL	20 ppm 50 mg/m3	2017/164/EU
Further information	Indicative			
		STEL	20 ppm 50 mg/m3	GB EH40
		TWA	10 ppm 25 mg/m3	GB EH40

8.2 Exposure controls

Engineering measures

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : Polychloroprene - CR
Wearing time : < 60 min

Material : Polyvinyl chloride - PVC
Wearing time : < 60 min

Material : Nitrile rubber - NBR
Wearing time : < 60 min

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations

Skin and body protection : Wear suitable protective clothing.

Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
Filter type	:	Recommended Filter type: Combined inorganic and acidic gas/vapour, ammonia/amines and organic vapour type (ABEK)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	clear
Colour	:	brown
Odour	:	acidic
Odour Threshold	:	No data available
pH	:	2.5 - 3.0 Concentration: 1 %
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 104 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.09 g/cm³ (20 °C)
Solubility(ies)	:	No data available
Partition coefficient: n-octanol/water	:	No data available

Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

Metal corrosion rate	:	Corrosive to metals

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Conditions to avoid	:	No data available

10.5 Incompatible materials

Materials to avoid	:	Metals Strong acids and strong bases

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 20 mg/l Exposure time: 4 h

Test atmosphere: vapour
Method: Calculation method

Components:

acetic acid:

Acute oral toxicity	:	LD50 (Rat, male and female): 3,310 mg/kg
Acute inhalation toxicity	:	LC50 (Rat, male and female): 11.4 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403 GLP: no
Acute dermal toxicity	:	LD50 (Rabbit): 1,060 mg/kg

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Acute oral toxicity	:	LD50 (Rat, male and female): 1,470 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402 Remarks: Extrapolation according to Regulation (EC) No. 440/2008

chlorocresol:

Acute oral toxicity	:	LD50 (Rat, male): 1,830 mg/kg Method: OECD Test Guideline 401 GLP: no
Acute inhalation toxicity	:	LC0 (Rat, male and female): > 2.871 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Highest producible concentration.
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

2-phenylphenol (ISO):

Acute oral toxicity	:	LD50 (Rat, male and female): 2,733 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute inhalation toxicity	:	LC0 (Rat, male and female): > 0.036 mg/l Exposure time: 4 h

Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Highest producible concentration.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Extrapolation according to Regulation (EC) No. 440/2008

tetrasodium ethylene diamine tetraacetate:

Acute oral toxicity : LD50 (Rat): 1,658 mg/kg

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Skin corrosion/irritation

Causes severe burns.

Components:

acetic acid:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Mild skin irritation
GLP: No information available.
Remarks: Aqueous solution

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

chlorocresol:

Species: Rabbit
Result: No skin irritation

2-phenylphenol (ISO):

Species: Rabbit
Method: OECD Test Guideline 404
Result: Irritating to skin.

tetrasodium ethylene diamine tetraacetate:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

acetic acid:

Species: Rabbit
Method: OECD Test Guideline 405
Result: Irreversible effects on the eye

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Species: Rabbit
Method: OECD Test Guideline 405
Result: Risk of serious damage to eyes.

chlorocresol:

Species: Rabbit
Result: Risk of serious damage to eyes.

2-phenylphenol (ISO):

Species: Rabbit
Method: OECD Test Guideline 405
Result: Risk of serious damage to eyes.

tetrasodium ethylene diamine tetraacetate:

Species: Rabbit
Method: OECD Test Guideline 405
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

acetic acid:

Assessment: Did not cause sensitisation on laboratory animals.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.

chlorocresol:

Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: The product is a skin sensitiser, sub-category 1B.

2-phenylphenol (ISO):

Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: no

tetrasodium ethylene diamine tetraacetate:

Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

acetic acid:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Rat (male and female) Application Route: Inhalation Method: Regulation (EC) No. 440/2008, Annex, B.12 Result: negative GLP: yes

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Genotoxicity in vitro	:	Test system: Bacteria Metabolic activation: with and without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.13/14 (Ames test) Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Method: OECD Test Guideline 474
Result: negative
GLP: yes

chlorocresol:

Genotoxicity in vitro : Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test system: Mammalian-Animal
Method: OECD Test Guideline 482
Result: negative

Genotoxicity in vivo : Species: Mouse
Application Route: Intraperitoneal
Method: OECD Test Guideline 474
Result: negative

2-phenylphenol (ISO):

Genotoxicity in vitro : Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: no

Genotoxicity in vivo : Species: Mouse (male)
Application Route: Oral
Result: negative

Test Type: Micronucleus test
Species: Rat (male)

Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

tetrasodium ethylene diamine tetraacetate:

Genotoxicity in vitro : Test Type: Ames test
Test system: Bacteria
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

chlorocresol:

Species: Rat, (male and female)
Application Route: Oral
Exposure time: 104 weeks
NOAEL: 558.9
Method: OECD Test Guideline 453

2-phenylphenol (ISO):

Species: Rat, (male)
Application Route: Oral
Exposure time: 2 Years
NOAEL: 200 mg/kg body weight
Method: OECD Test Guideline 453
Result: negative
GLP: yes

Species: Rat, (female)
Application Route: Oral
Exposure time: 2 Years
NOAEL: >= 647 mg/kg body weight
Method: OECD Test Guideline 453
Result: negative
GLP: yes

Reproductive toxicity

Not classified based on available information.

Components:

acetic acid:

Effects on foetal development : Species: Rabbit, female
Application Route: Oral
Dose: 1600 milligram per kilogram
Duration of Single Treatment: 13 d
General Toxicity Maternal: NOAEL: 1,600 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 1,600 mg/kg body weight

Method: Regulation (EC) No. 440/2008, Annex, B.31
Result: No adverse effects

chlorocresol:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
General Toxicity F1: NOAEL: 247.8 mg/kg body weight
Fertility: NOAEL: 1,043 mg/kg body weight
Method: OECD Test Guideline 416

Effects on foetal development : Species: Rat, female
Application Route: Oral
Developmental Toxicity: NOAEL: 100 mg/kg body weight
Method: OECD Test Guideline 414

2-phenylphenol (ISO):

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Duration of Single Treatment: 175 d
Fertility: NOAEL: >= 500 mg/kg body weight
Method: OECD Test Guideline 416
Result: No effects on fertility and early embryonic development were detected.
GLP: yes

Effects on foetal development : Species: Rat
Application Route: Oral
Duration of Single Treatment: 28 d
Developmental Toxicity: NOAEL: 250 mg/kg body weight
Method: OECD Test Guideline 414

STOT - single exposure

May cause respiratory irritation.

Components:

chlorocresol:

Assessment: May cause respiratory irritation.

2-phenylphenol (ISO):

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

tetrasodium ethylene diamine tetraacetate:

Exposure routes: Inhalation
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Species: Rat, male and female
NOAEL: 40 mg/kg
Application Route: Oral
GLP: no
Remarks: Subchronic toxicity

Species: Rat, male and female
LOAEL: 115 mg/kg
Application Route: Oral
GLP: no
Remarks: Subchronic toxicity

chlorocresol:

Species: Rat, male
NOAEL: 120 mg/kg
Application Route: Oral
Exposure time: 90 d
Number of exposures: daily
Method: OECD Test Guideline 408
Remarks: Subchronic toxicity

Species: Rat, male and female
NOAEL: 500 mg/kg
Application Route: Dermal
Exposure time: 90 d
Number of exposures: daily
Method: OECD Test Guideline 411
Remarks: Subchronic toxicity

2-phenylphenol (ISO):

Species: Rat, male
LOAEL: 200 mg/kg
Application Route: Oral
Exposure time: 2 yr
Method: OECD Test Guideline 453
GLP: yes
Remarks: Chronic toxicity

Species: Rat, female
LOAEL: 647 mg/kg
Application Route: Oral
Exposure time: 2 yr
Method: OECD Test Guideline 453
GLP: yes
Remarks: Chronic toxicity

Species: Rat, male and female
NOAEL: >= 1,000 mg/kg
Application Route: Dermal
Exposure time: 21 d
Method: OECD Test Guideline 410
GLP: yes
Remarks: Subacute toxicity

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

acetic acid:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): > 300.82 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: no Method: OECD Test Guideline 203 GLP: yes Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 300.82 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes Remarks: Fresh water
Toxicity to algae	:	EC50 (Skeletonema costatum (marine diatom)): > 300.82 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: no Method: ISO 10253 GLP: yes Remarks: salt water
Toxicity to microorganisms	:	NOEC (Pseudomonas putida): 1,150 mg/l Exposure time: 16 h GLP:

Remarks: Fresh water

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.67 mg/l Exposure time: 96 h Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.9 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Fresh water
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 29 mg/l Exposure time: 96 h Remarks: Fresh water NOEC (Pseudokirchneriella subcapitata (microalgae)): 0.5 mg/l Exposure time: 96 h Remarks: Fresh water
Toxicity to fish (Chronic toxicity)	:	NOEC: 1 mg/l Exposure time: 28 d Species: Lepomis macrochirus (Bluegill sunfish) Method: OECD Test Guideline 204 Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1.18 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 Remarks: Fresh water

chlorocresol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.917 mg/l Exposure time: 96 h Method: EPA OPP 72-1 (Fish Acute Toxicity Test)
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.29 mg/l Exposure time: 48 h Method: OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 30.62 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 9.8 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Short-term (acute) aquatic hazard)	:	1

Toxicity to microorganisms	:	EC50 (activated sludge): 41.4 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.15 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout) Method: OECD Test Guideline 215
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.32 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

2-phenylphenol (ISO):

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 4.5 mg/l Exposure time: 96 h GLP: yes Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.7 mg/l Exposure time: 48 h Remarks: Fresh water
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 3.57 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes Remarks: Fresh water NOEC (Pseudokirchneriella subcapitata (microalgae)): 0.468 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes Remarks: Fresh water
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.036 mg/l Exposure time: 21 d Species: Pimephales promelas (fathead minnow) GLP: yes Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.009 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 GLP: yes Remarks: Fresh water

M-Factor (Long-term (chronic) aquatic hazard) : 1

tetrasodium ethylene diamine tetraacetate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 121 mg/l
Exposure time: 96 h
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 610 mg/l
Exposure time: 24 h
Method: ISO 6341
Remarks: Fresh water

Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Remarks: Fresh water

NOEC (Desmodesmus subspicatus (green algae)): 100 mg/l
Exposure time: 72 h
Remarks: Fresh water

Toxicity to fish (Chronic toxicity) : NOEC: > 25.7 mg/l
Exposure time: 35 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 25 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: Fresh water

12.2 Persistence and degradability

Components:

acetic acid:

Biodegradability : Result: Readily biodegradable.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 94 %
Exposure time: 28 d
Method: OECD Test Guideline 301A
GLP: yes

chlorocresol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 85 %

Exposure time: 28 d
Method: OECD Test Guideline 301D

2-phenylphenol (ISO):

Biodegradability : Test Type: aerobic
Result: Readily biodegradable.
Biodegradation: 70.8 - 75.7 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

tetrasodium ethylene diamine tetraacetate:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 10 %
Exposure time: 28 d
Method: OECD Test Guideline 302B

12.3 Bioaccumulative potential

Components:

acetic acid:

Partition coefficient: n-octanol/water : log Pow: -0.17

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:

Partition coefficient: n-octanol/water : log Pow: 2.2
Method: OECD Test Guideline 123

chlorocresol:

Partition coefficient: n-octanol/water : log Pow: 2.73 (25 °C)
pH: 7.2
Method: OECD Test Guideline 107

2-phenylphenol (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 22

Partition coefficient: n-octanol/water : log Pow: 3.18
Method: OECD Test Guideline 107

tetrasodium ethylene diamine tetraacetate:

Bioaccumulation : Bioconcentration factor (BCF): 1.8

12.4 Mobility in soil

Components:

2-phenylphenol (ISO):

Distribution among environmental compartments : log Koc: 2.4 - 2.6

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.

The product should not be allowed to enter drains, water courses or the soil.
Send to a licensed waste management company.

The generation of waste should be avoided or minimised wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Wastedisposal should be in accordance with existing federal state, provincial and or local environmental controls

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADN : UN 3265

ADR : UN 3265

RID : UN 3265

IMDG : UN 3265

IATA : UN 3265

14.2 UN proper shipping name

ADN : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ACETIC ACID, ALKYLBENZENE SULFONIC ACID, 2-PHENYLPHENOL)

ADR : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ACETIC ACID, ALKYLBENZENE SULFONIC ACID, 2-PHENYLPHENOL)

RID : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ACETIC ACID, ALKYLBENZENE SULFONIC ACID, 2-PHENYLPHENOL)

IMDG : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ACETIC ACID, ALKYLBENZENE SULFONIC ACID, 2-PHENYLPHENOL)

IATA : Corrosive liquid, acidic, organic, n.o.s. (ACETIC ACID, ALKYLBENZENE SULFONIC ACID, 2-PHENYLPHENOL)

14.3 Transport hazard class(es)

ADN : 8

ADR : 8

RID : 8

IMDG : 8

IATA : 8

14.4 Packing group

ADN
Packing group : III
Classification Code : C3
Hazard Identification Number : 80
Labels : 8

ADR
Packing group : III
Classification Code : C3
Hazard Identification Number : 80
Labels : 8

Tunnel restriction code : E

RID

Packing group : III
Classification Code : C3
Hazard Identification Number : 80
Labels : 8

IMDG

Packing group : III
Labels : 8
:

IATA (Cargo)

Packing instruction (cargo aircraft) : 856: 60.00 L
Packing group : III
Labels : 8
:

IATA (Passenger)

Packing instruction (passenger aircraft) : 852: 5.00 L
Packing group : III
Labels : 8
:

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

IATA (Passenger)
Environmentally hazardous : yes

IATA (Cargo)
Environmentally hazardous : yes

14.6 Special precautions for user

Hazard statements : Slightly corrosive.
Environmentally hazardous substance.
Keep away from foodstuffs, acids and alkalis.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.	:	sulphuric acid
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list: 3

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

Not applicable

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
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.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H373	:	May cause damage to organs through prolonged or repeated exposure if inhaled.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
2017/164/EU / STEL	:	Short term exposure limit
2017/164/EU / TWA	:	Limit Value - eight hours
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals

Further information

Classification of the mixture:		**Classification procedure:**
Met. Corr. 1	H290	Based on product data or assessment
Skin Corr. 1C	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method
Aquatic Chronic 2	H411	Calculation method

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to de-

scribe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.