SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : CHLORIFIX SHOCK_2,4KG_414918.
Product code : 5933630.
UFI : 6K32-76K0-G10Q-70FP

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

Disinfection, oxidation, algae prevention, flocculation and hardness stabilizer of pool water

1.3. Details of the supplier of the safety data sheet

Registered company name : BAYROL Deutschland GmbH (UK).
Address : Robert-Koch-Straße 4.82152.Planegg.GERMANY.
Telephone : +49 (0) 89 857 01-0. Fax : +49 (0) 89 857 01-276.
sds@bayrol.eu
www.bayrol.de
United Kingdom Legal Entity : Holt Lloyd International Limited
Unit 100, Barton Dock Road
Stretford, Manchester M32 0YQ

1.4. Emergency telephone number : (+44)(0)1865407333.

Association/Organisation : NCEC.

Other emergency numbers

Ireland : National Poisons Information Centre (+353)(0)18092166
Eitrunarmiðstöð Landspítalans (Icelandic University Hospital): 00 354 543 22 22

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin irritation, Category 2 (Skin Irrit. 2, H315).
Serious eye damage, Category 1 (Eye Dam. 1, H318).
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).
Contact with acids liberates toxic gas (EUH031).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

Biocidal mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS05 GHS09 GHS07

Signal Word :
DANGER
Product identifiers :

EC 610-700-3	TROCLOSENE SODIUM, DIHYDRATE
EC 274-778-7	PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE)

Additional labeling :

EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Hazard statements :

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Precautionary statements - General :

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary statements - Prevention :

P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection

Precautionary statements - Response :

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor.

Precautionary statements - Storage :

P405	Store locked up.

Precautionary statements - Disposal :

P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table
The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.
The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 51580-86-0 EC: 610-700-3 TROCLOSENE SODIUM, DIHYDRATE	GHS07, GHS09 Wng Acute Tox. 4, H302 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1 EUH:031		50 <= x % < 100
CAS: 70693-62-8 EC: 274-778-7 REACH: 01-2119485567-22-XXXX PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE)	GHS07, GHS05 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412		2.5 <= x % < 10
CAS: 7727-21-1 EC: 231-781-8 REACH: 01-2119495676-19-XXXX DIPOTASSIUM PEROXODISULPHATE	GHS07, GHS08, GHS03 Dgr Ox. Sol. 3, H272 Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335	[1]	0 > x % < 0.1

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 51580-86-0 EC: 610-700-3 TROCLOSENE SODIUM, DIHYDRATE		oral: ATE = 1823 mg/kg BW

CAS: 70693-62-8 EC: 274-778-7 REACH: 01-2119485567-22-XXXX PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE)		oral: ATE = 500 mg/kg BW
CAS: 7727-21-1 EC: 231-781-8 REACH: 01-2119495676-19-XXXX DIPOTASSIUM PEROXODISULPHATE	Ox. Sol. 3: H272 C>= 100%	oral: ATE = 742 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation of dust, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated aera is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

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

No data available.

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

Information for the doctor :

Treat symptoms.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- water
- carbon dioxide (CO_2)
- dry sand

Unsuitable methods of extinction

In the event of a fire, do not use :

- sprayed water or water mist
- foam

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :
- carbon monoxide (CO)
- carbon dioxide (CO2)
- chlorine (Cl2)
- nitrogen oxide (NO)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

Special protective equipment for fire-fighters	Use breathing apparatus with independent air supply. Wear full protective clothing.
Additional information	Cool endangered containers with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.
Avoid inhaling dust.
If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming).

Additional Information	Neutralize active chlorine with suitable materials (Sulphite, Thiosulphate or hydrogen peroxide aqueous solution)

6.4. Reference to other sections

Safe handling: see section 7
Emergency telephone number: see section 1
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Handle in well-ventilated areas.
Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.
In all cases, recover emissions at source.
Avoid eye contact with this mixture at all times.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Do not store together with food.

Storage

Keep out of reach of children.
Keep the container tightly closed in a dry, well-ventilated place.
Protect from sun.

Storage stability	Storage time: 5 years.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

See section 1.2

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7727-21-1	0.1 mg/m3	-	-	-	-

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	9.5 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	0.824 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	0.47 mg/kg body weight/day
Exposure method:	Ingestion.
Potential health effects:	Short term systemic effects.
DNEL :	1.41 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	4.8 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	0.421 mg of substance/m3

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	20 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	80 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term local effects.
DNEL :	0.449 mg of substance/cm2
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	0.28 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	50 mg of substance/m3

Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	0.28 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	50 mg of substance/m3

Predicted no effect concentration (PNEC):

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Environmental compartment:	Soil.
PNEC :	0.1 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.518 mg/l
Environmental compartment:	Sea water.
PNEC :	0.052 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	2.03 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.203 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	3.6 mg/l

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Environmental compartment:	Soil.
PNEC :	0.885 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.022 mg/l
Environmental compartment:	Sea water.
PNEC :	0.00222 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.0109 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	0.017 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.00173 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	108 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.
Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.
Prescription glasses are not considered as protection.
Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Butyl Rubber (Isobutylene-isoprene copolymer)
Recommended properties :
Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)
Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness
Butyl rubber (butyl) - 0.7mm layer thickness
In view of the many different types, the manufacturers' directions for use must be followed

- Body protection

Avoid skin contact.
Wear suitable protective clothing.
Suitable type of protective clothing :
Wear protective clothing against solid chemicals and particles suspended in the air (type 5) in accordance with standard EN13982-1/A1 to prevent skin contact.
Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling dust.
If the ventilation is insufficient, wear appropriate breathing apparatus.
When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.
Type of FFP mask :
Wear a disposable half-mask dust filter in accordance with standard EN149/A1.
Category :
- FFP1
Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :
- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state :	Solid in granules.

Colour

White

Odour

Odour threshold :	Not stated.

typical, pungent

Melting point

Melting point/melting range :	Not specified.

Freezing point

Freezing point / Freezing range :	Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range :	Not specified.

Flammability

Flammability (solid, gas) :	Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.

Flash point

Flash point interval :	Not relevant.

Auto-ignition temperature

Self-ignition temperature :	Not specified.

Decomposition temperature

Decomposition point/decomposition range :	245 °C.

pH

pH :	5.00 +/- 1.
	Neutral.
pH (aqueous solution) :	4 - 6 à 10 g/L - 20°C

Kinematic viscosity

Viscosity :	Not stated.

Solubility

Water solubility :	Soluble. 250 g/L à 25 °C
Fat solubility :	Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.

Vapour pressure

Vapour pressure (50°C) :	Not relevant.

Density and/or relative density

Density :	Not stated.
Bulk density	1210 kg/m3

Relative vapour density

Vapour density :	Not stated.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

This mixture reacts with acids, releasing toxic gases in dangerous quantities.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

Reactions with acids.

10.4. Conditions to avoid

Avoid :
- formation of dusts

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

Keep away from :
- acids
- oils
- combustible material
- organic material

Releases a toxic gas when in contact with acids.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :
- carbon monoxide (CO)
- carbon dioxide (CO2)
- chlorine (Cl2)
- nitrogen oxide (NO)

Nitrogen trichloride (NCl3)

SECTION 11 : TOXICOLOGICAL INFORMATION

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

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

11.1.1. Substances

Acute toxicity :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Oral route : LD50 = 742 mg/kg bodyweight/day
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 2000 mg/kg bodyweight/day
Species : Rat

Inhalation route (Dusts/mist) : LC50 >= 5.1 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Oral route : LD50 = 500 mg/kg bodyweight/day
Species : Rat
OECD Guideline 423 (Acute Oral toxicityAcute Toxic Class Method)

Dermal route : LD50 > 5000 mg/kg bodyweight/day
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Dusts/mist) : LC50 > 5 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

Oral route : LD50 = 1823 mg/kg bodyweight/day
Species : Rat

Dermal route : LD50 > 5000 mg/kg bodyweight/day
Species : Rat

Skin corrosion/skin irritation :

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

OECD Guideline 406 (Skin Sensitisation)

OECD Guideline 406 (Skin Sensitisation)

OECD Guideline 406 (Skin Sensitisation)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Local lymph node stimulation test : Non-Sensitiser.
Species : Others
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Mutagenesis (in vivo) : Negative.
Species : Mouse
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Ames test (in vitro) : Negative.

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Mutagenesis (in vivo) : Negative.
Species : Mouse
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Positive.
OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Carcinogenicity :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Mouse
OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicant :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Study on development : Species : Rat
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Specific target organ systemic toxicity - repeated exposure :

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Oral route : C = 3000 mg/kg bodyweight/day
Species : Rat
Duration of exposure : 90 days
OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Oral route : C = 600 mg/kg bodyweight/day

Species : Rat
Duration of exposure : 90 days
OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.
The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Fish toxicity : LC50 = 107.6 mg/l
Duration of exposure : 96 h
OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)

Crustacean toxicity : EC50 = 120 mg/l
Species : Daphnia magna
Duration of exposure : 48 h

Algae toxicity : ECr50 = 320 mg/l
Species : Phaeodactylum sp.
Duration of exposure : 72 h
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

NOEC = 32 mg/l
Species : Phaeodactylum sp.
Duration of exposure : 72 h
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE) (CAS: 70693-62-8)

Fish toxicity : LC50 = 53 mg/l
Species : Oncorhynchus mykiss
Duration of exposure : 96 h
OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)

Crustacean toxicity : EC50 > 1 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

Algae toxicity : ECr50 = 0.5 mg/l
Species : Pseudokirchnerella subcapitata
Duration of exposure : 72 h
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

NOEC = 0.5 mg/l
Species : Pseudokirchnerella subcapitata
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

Fish toxicity : LC50 = 0.24 mg/l
Factor M = 1
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 0.196 mg/l
Factor M = 1
Duration of exposure : 48 h

Algae toxicity : ECr50 > 5000 mg/l

Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

DIPOTASSIUM PEROXODISULPHATE (CAS: 7727-21-1)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2020 [40-20] - ICAO/IATA 2023 [64]).

14.1. UN number or ID number

3077

14.2. UN proper shipping name

UN3077=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(troclosene sodium, dihydrate)

14.3. Transport hazard class(es)

- Classification :

9

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M7	III	9	90	5 kg	274 335 375 601	E1	3	-

*Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 kg	F-A. S-F	274 335 966 967 969	E1	Category A SW23	-

*Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	956	400 kg	956	400 kg	A97 A158 A179 A197 A215	E1
	9	-	III	Y956	30 kg G	-	-	A97 A158 A179 A197 A215	E1

*Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(troclosene sodium, dihydrate)

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

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
TROCLOSENE SODIUM, DIHYDRATE	51580-86-0	500.00 g/kg	02
PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE)	70693-62-8	44.10 g/kg	02

Product-type 2 : Disinfectants and algaecides not intended for direct application to humans or animals.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of

knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H272	May intensify fire; oxidiser.
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.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
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.
EUH031	Contact with acids liberates toxic gas.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
NOEC : The concentration with no observed effect.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight
DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
UFI : Unique formulation identifier.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS05 : Corrosion
GHS07 : Exclamation mark
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.