

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

1.1. Product identifier

Name of product Chlorifix Shock
414918

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

Recommended intended purpose(s)

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

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor BAYROL Deutschland GmbH
Robert-Koch-Str. 4, D-82152 Planegg
Phone +49 (0) 89 85701-0

Advice

E-mail (competent person):
ASchwarzenboeck@bayrol.eu

1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Acute Tox. 4	H302	
Skin Irrit. 2	H315	
Eye Dam. 1	H318	
STOT SE 3	H335	
Aquatic Acute 1		
Aquatic Chronic 1	H410	

Hazard Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05



GHS07



GHS09

Signal word

Danger

Hazard Statements

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/eye protection.
 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.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients for labeling

Pentapotassium-bis(peroxymonosulphate)-bis(sulphate), troclosene sodium, dihydrate

Supplemental Hazard information (EU)

Contact with acids liberates toxic gas.

Special rules for supplemental label elements for certain mixtures

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

2.3. Other hazards
Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients
3.1. Substances

not applicable

3.2. Mixtures
Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
51580-86-0	220-767-7	troclosene sodium, dihydrate	50	Acute Tox. 4, H302 / Eye Irrit. 2, H319 / STOT SE 3, H335 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410
70693-62-8	274-778-7	Pentapotassium-bis(peroxymonosulphate)-bis(sulphate)	4,5	Acute tox. Cat 4, H302 / Skin corr. Cat 1 B, H314 /

REACH

CAS No	Name	REACH registration number
51580-86-0	troclosene sodium, dihydrate	01-2119489371-33-xxxx

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.
Adhere to personal protective measures when giving first aid.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.
Refer for medical treatment.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.
Consult a doctor if skin irritation persists.

In case of eye contact

Eye rinsing with water carefully while protecting unhurt eye.
Refer to medical treatment.

In case of ingestion

Do not induce vomiting.
Call for a doctor immediately.
Rinse out mouth and give plenty of water to drink.

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

No information available.

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

Treatment (Advice to doctor)

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Large quantities of water
Carbon dioxide
sand

Unsuitable extinguishing media

Small quantities of water
foam

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Chlorine (Cl₂)

5.3. Advice for firefighters

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

For non-emergency personnel

Ensure adequate ventilation.
Avoid dust formation.
Use personal protective clothing.
Keep away sources of ignition.
Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up mechanically and send for disposal.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid the formation and deposition of dust.
Use only in well-ventilated areas.

General protective measures

Do not inhale dust.
Avoid contact with the eyes.

Hygiene measures

At work do not eat, drink and smoke.
Keep away from food and drink.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking
Keep at distance of acids, reducing agents and organic substances (e.g. wood, paper, fat).
Avoid entering of water in shortage.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Do not store together with food.

Further information on storage conditions

Keep container tightly closed.
Storage: cool and dry

Information on storage stability

Storage time: 5 years.

7.3. Specific end use(s)
Recommendation(s) for intended use

See section 1.2

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m ³]	[ppm]		Remark
7782-50-5	chlorine	8 hours	1,5	0,5	1(l)	DFG, EU, Y

8.2. Exposure controls
Respiratory protection

In case of dust formation wear micro dust mask.

Hand protection

chemical-resistant gloves

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

Eye protection

Safety goggles

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Appearance

granules

Colour

white

Odour

typical, pungent

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 4 - 6	20 °C	10 g/l		
Boiling temperature / boiling range	not determined				
decomposition point	240 - 250 °C				
Flash point	not determined				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				

	Value	Temperature	at	Method	Remark
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Bulk density	1210 kg/m ³				
Vapour density	not determined				
Solubility in water	250 g/l	25 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

Oxidising properties

No information available.

Explosive properties

No information available.

9.2. Other information

No information available.

SECTION 10: Stability and reactivity
10.1. Reactivity

Thermal decomposition can lead to the escape of irritating gases and vapours.

10.2. Chemical stability

Decomposition temperature:

240°C - 250°C

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gases.

10.4. Conditions to avoid

Reactions with combustible substances.

Reactions with acids.

Reactions with fats and oils.

Reactions with impurities.

Reactions with organic substances.

10.5. Incompatible materials
Substances to avoid

Oil
 Acid

10.6. Hazardous decomposition products

Nitrogen trichloride
 Nitrous oxides (NOx)
 Chlorine

Additional information

Product may cause bleaching textiles, liners, paintings etc. Chlorine gas may decompose metals and is corrosive.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	ca. 500 mg/kg	rat		Information concerns to main component.
Skin irritation	irritant			
Eye irritation	risk of strong eye injuries			

Experiences made from practice

Irritates respiratory tract.
 Irritates mucous membranes.

Additional information

The product has not been tested. The information is derived from the properties of the individual components.

SECTION 12: Ecological information
12.1. Toxicity
Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 0,25 - 0,46 mg/l (96 h)	diverse Spezies		M = 1
Daphnia	EC50 0,28 mg/l (48 h)	Daphnia magna		M = 1

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
General regulation

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.
 The information to ecology refers to main component.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Recommendations for the product

Remove in accordance with local official regulations.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

Recommendations for packaging

Untamminated packaging may be taken for recycling.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3077	3077	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium, dihydrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium, dihydrate)	Environmentally hazardous substance, solid, n.o.s. (troclosene sodium, dihydrate)
14.3. Transport hazard class(es)	9	9	9
14.4. Packing group	III	III	III
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 9
 tunnel restriction code E
 Classification code M7

Marine transport IMDG

MARINE POLLUTANT

SECTION 15: Regulatory information

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

Other regulations (EU)

Please note:

Observe regulation 98/24/EC for employee health protection against the threat of chemical substances in the workplace.

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

Refer to product information paper.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Sources of key data used

Results of own researches and examinations

Literature informations

Toxicity studies, NIOSH-Tox-Data

National legislation and regulation

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.