

## Non Chlorine Shock

### 1. Identification of the substance/preparation and of the company/undertaking

**1.1 Product Identifier** Non Chlorine Shock

**1.2 Relevant Identified uses of the substance or mixture and uses advised against**

Uses: This product may be used as a biocidal active substance in accordance with Regulation (EU) 518/2012, if the appropriate local authorisations have been obtained.  
Water treatment chemical

**1.3 Details of the supplier of the safety data sheet**

Company: Complete Pool Controls Ltd  
Unit 2, The Park  
Stoke Orchard  
Bishops Cleeve  
Gloucestershire  
GL52 7RS

Telephone: +44 (0) 8712 229081

Fax: +44 (0) 8712 229083

E-mail: [sales@cpc-chemicals.co.uk](mailto:sales@cpc-chemicals.co.uk)

**1.4 Emergency Telephone**

Tel: +44 (0) 8712 229081 (office hours) +44 (0) 1242 300271 (outside of office hours)

### 2. Hazard Identification

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

**Hazard Class**

Skin Corrosion 1A H314

Acute Tox 4 H302

Aquatic Chronic 3 H412

For the full text of the H statements mentioned in this section see Section 16.

**Most important adverse effects**

Human Health: See section 11 for toxicological information

Physical & Chemical Hazards: See section 9 for physicochemical information

Potential environmental effects: See section 12 for environmental information

**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols:



Signal word: Danger

Hazard statements: H314 Causes severe skin burns and eye damage  
H302 Harmful if swallowed.  
H412 Harmful to aquatic life with long lasting effects

**Additional Labelling:** Contains: Dipotassium peroxodisulphate  
EUH208: May produce an allergic reaction

Precautionary statements: P102 Keep out of reach of children  
P273: Avoid release to the environment  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P301+P361+P353: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water

**2. Hazard Identification**

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
 P310: Immediately call a poison centre  
 P405: Store locked up  
 P501: Dispose of contents/container in accordance with local regulations.  
 Use biocides safely. Always read the label and product information before use

Special Labelling: contains: Dipotassium peroxodisulphate. May produce an allergic reaction

**2.3 Other Hazards**

PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

**3. Composition/information on ingredients****3.1 Mixture**

CAS-No.	EINECS	%	Hazards
<b>pentapotassium bis(peroxymonosulphate)bis(sulphate)</b>			
70693-62-8	274-778-7	>=86-<=96%	Acute Tox. 4, H302 : Skin Corr. 1B; H314 : Eye Dam.1; H318: Aquatic Chronic 3;
<b>Dipotassium peroxodisulphate</b>			
77727-21-1	231-781-8	>=0 - <=5%	Ox. 301/3, H272 Acute Tox 4 H302, Skin Irrit 2; H315 Eye Irrit 2; H315: Resp.Sens1;H334 : Skin Sens.1;;H3017, STOT SE3: H335 : Aquatic Chronic 3:
<b>Tetra[carbonato(2)]dihyroxypentamagnesium</b>			
		>=1 - <=2%	

For the full text of the H statements mentioned in this section see Section 16.

**4. First Aid measures****4.1 Description of first aid measures**

General Advice: Never give anything by mouth to an unconscious person. Remove from exposure, lie down. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

If Inhaled: In case of accident by inhalation; remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately

In case of skin contact: Immediately flush skin with large amounts of water. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Consult a physician

In case of eye contact: Rinse immediately with plenty of water, also under eyelids for at least 15 minutes. Remove contact lenses. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed: Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician

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

Symptoms May provoke the following symptoms:  
 Inhalation: Nose bleed, irritation, cough, discomfort.  
 Skin Contact: Severe irritation, Erythema, Burn, Rash, Discomfort  
 Eye Contact: Corrosion, Irritation, Discomfort, lachrymation, Blurred vision, Ulceration,  
 Ingestion: Inflammation of the stomach (gastritis)

**4.3 Indication of immediate medical attention and special treatment needed**

Treatment Treat symptomatically

**5. Fire fighting measures****5.1 Extinguishing media:**

Suitable media: Use extinguishing measures that are appropriate to local circumstances and environment.  
 Unsuitable media: Carbon dioxide (CO<sub>2</sub>). High volume water jet.

**5.2 Special hazards arising from the substance or mixture**

Specific Hazards : The product itself does not burn.

**5.3 Advice for fire-fighters**

Special equipment: In the event of fire, wear self-contained breathing apparatus and protective suit

Further Information: Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses..

**6. Accidental release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Personal Precautions: Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use personal protective equipment. Ensure adequate ventilation.

**6.2 Environmental precautions**

Environmental precautions: Should not be released into the environment. Prevent material from entering sewers, waterways, or low areas. Do not contaminate water.

**6.3 Methods and materials for containment and cleaning up**

Cleaning up: Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.

Further Information: Dispose of in accordance with local regulations.

**6.4 Reference to other sections** See Section 8 for personal protective information**7. Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling: Use only in well-ventilated areas. Do not breathe dust. Avoid dust formation in confined areas. Avoid contact with skin and eyes. Keep away from heat and flame.

**7.2 Conditions for safe storage, including any incompatibilities.**

Storage: Keep in a dry, cool and well-ventilated place. Protect from contamination

Containers: Store only in original containers

Common storage: Keep away from: Combustible material Never allow product to get in contact with water during storage.

Other Information: Stable under recommended storage conditions

**7.3 Specific end uses**

Specific use(s) No information available

**Further Information** Protect from humidity and water

## 8. Exposure control/personal protection

## 8.1 Control parameters

If sub-section is empty then no values are applicable.

## pentapotassium bis(peroxymonosulphate)bis(sulphate)

Use	Exposure Route	Health Effect	Value:
Workers	Skin contact	Acute - systemic effects	80 mg/kg body
Workers	Inhalation	Acute - systemic effects	50 mg/m <sup>3</sup>
Workers	Skin contact	Acute - local effects	0.449 mg/cm <sup>2</sup>
Workers	Inhalation	Acute - local effects	50 mg/m <sup>3</sup>
Workers	Skin contact	Long-term - systemic effects	0.28 mg/m <sup>3</sup>
Workers	Inhalation	Long-term - systemic effects	0.28 mg/m <sup>3</sup>
Consumers	Skin contact	Acute - systemic effects	80 mg/kg body
Consumers	Inhalation	Acute - systemic effects	25 mg/m <sup>3</sup>
Consumers	ingestion	Acute - systemic effects	10 mg/kg body
Consumers	Skin contact	Acute - local effects	0.224 mg/cm <sup>2</sup>
Consumers	Inhalation	Acute - local effects	25 mg/m <sup>3</sup>
Consumers	Skin contact	Long-term - systemic effects	10 mg/kg body
Consumers	Inhalation	Long-term - systemic effects	0.14 mg/m <sup>3</sup>
Consumers	ingestion	Long-term - systemic effects	10 mg/kg body
Consumers	Inhalation	Effect: Long-term - local effects	0.14 mg/m <sup>3</sup>

## Predicted No Effect Concentration (PNEC)

## pentapotassium bis(peroxymonosulphate)bis(sulphate)

Compartment	Value
Fresh water	0.022 mg/l
Marine water	0.002 mg/l
Intermittent use/release	0.0109 mg/l
Fresh water sediment	0.017 mg/l
Fresh water sediment	0.017 mg/l
Marine sediment	0.00174 mg/l
Soil	0.885 mg/l
Sewage treatment plants	108 mg/l

## 8.2 Exposure controls

Engineering measures	Ensure adequate ventilation, especially in confined areas
Eye protection	Wear safety glasses or coverall chemical splash goggles
Hand protection	Wear protective gloves. Material: butyl-rubber Break through time: >= 8 h Glove thickness: 0.5 mm
Skin and body protection	Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots. Remove and wash contaminated clothing before re-use.
Protective measures	When using do not eat or drink. Do not breathe dust.
Hygiene measures	Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing. Handle in accordance with good industrial hygiene and safety practice
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Form:	Solid form, granular
Colour:	white
Odour:	none
pH @ 20°C:	2.1 at 30 g/l ( 20 °C)
Melting Point	Decomposes before melting.
Boiling point:	Not applicable
Flash point:	does not flash
Flammability (solid, gas)	Product is not flammable
Oxidizing properties	The substance or mixture is not classified as oxidizing
Explosive properties:	Product does not present an explosion hazard
Vapour pressure	< 0.0000017 hPa
Relative density	2.35 at 20 °C
Water solubility	297 - 357 g/l at 22 °C
Density @ 20°C:	Not determined
Water solubility:	Soluble
Viscosity, dynamic	No data available
<b>Other Information</b>	No further information available

**10. Stability and reactivity****10.1 Reactivity**

Reactivity Stable under recommended storage conditions

**10.2 Chemical stability**

Chemical stability Stable under normal conditions

**10.3 Possibility of hazardous reactions**

Possibility of haz.reactions No information available

**10.4 Conditions to avoid**

Conditions to avoid Temperature : > 50 °C Avoid extreme heat

**10.5 Incompatible materials**

Incompatible materials Halogenated compounds Cyanides Heavy metal salts

**10.6 Hazardous decomposition products**

Haz. Decomp. products no data available

**11. Toxicological Information****11.1 Information on toxicological effects****Acute oral toxicity**

Acute toxicity estimate : 506.88 mg/kg Method: Calculation method

***Pentapotassium bis(peroxymonosulphate) bis(sulphate)***

LD50 Rat 500 mg/kg Method: OECD Test Guideline 423

***Dipotassium peroxodisulphate***

LD50 Rat 1,130 mg/kg OECD Test Guideline 401

***Tetra[carbonato(2-)]dihydroxypentamagnesium***

LD50 Rat > 2,000 mg/kg Fixed Dose Method

Information given is based on data obtained from similar substances.

## 11. Toxicological Information

## Acute inhalation toxicity

LC50 4 h Rat &gt; 5 mg/l

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

LC50 : 4 h Rat &gt; 5 mg/l Method: OECD Test Guideline 403

**Dipotassium peroxodisulphate**

LC50 : 4 h Rat &gt; 5 mg/l Respiratory tract irritation Dust

## Acute dermal toxicity

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

LD50 : Rat &gt;2,000 mg/kg Method: Directive 67/548/EEC, Annex V, B.3.

**Dipotassium peroxodisulphate**

LD50 : Rabbit &gt;10,000 mg/kg

## Skin irritation

Rabbit Result: Causes burns

## Classification

## Result

## Method

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

Rabbit Corrosive Causes burns OECD Test Guideline 404

**Dipotassium peroxodisulphate**

Rabbit Irritating to Skin Skin irritation OECD Test Guideline 404

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

(RhE)\* Not classified as irritant No skin irritation OECD Test Guideline 431

*Information given is based on data obtained from similar substances**\*reconstructed human epidermis*

## Eye irritation

Rabbit Result: Severe eye irritation

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

Rabbit Causes severe burns Corrosive OECD Test Guideline 404

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

Rabbit Not classified as irritant No eye irritation OECD Test Guideline 405

*Information given is based on data obtained from similar substances*

## Sensitisation

## Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Classification: Not a sensitizer by inhalation.

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)***Guinea Pig*

Classification: Does not cause skin sensitisation

Result: Does not cause skin sensitisation

*Human*

Classification: Does not cause skin sensitisation

Result: Does not cause respiratory sensitisation

**Dipotassium peroxodisulphate**

## Human

Classification: May cause sensitisation by inhalation.

Result: May cause sensitisation by inhalation.

## Mouse Local lymph node test

Classification: May cause sensitisation by skin contact

Result: May cause sensitisation by skin contact

Method: OECD Test Guideline 429

## 11. Toxicological Information

Repeated dose toxicity  
LC50 4 h Rat > 5 mg/l

**Dipotassium peroxodisulphate**

Oral Rat

NOAEL: 131.5 mg/kg

Method: OECD Test Guideline 407

No toxicologically significant effects were found.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

Oral Rat

Exposure time: 90d

NOAEL: 1,531 mg/kg

Method: OECD Test Guideline 408

No toxicologically significant effects were found.

*Information given is based on data obtained from similar substances*

Mutagenicity assessment

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

Animal testing did not show any mutagenic effects. Did not cause genetic damage in cultured bacterial cells.

Tests on mammalian cell cultures showed mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.

**Dipotassium peroxodisulphate**

Animal testing did not show any mutagenic effects. Did not cause genetic damage in cultured bacterial cells.

Tests on mammalian cell cultures showed mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals. Information given is based on data obtained from similar substances.

Carcinogenicity assessment

**Dipotassium peroxodisulphate**

Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects. Information given is based on data obtained from similar substances.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

Not classifiable as a human carcinogen. Information given is based on data obtained from similar substances. Animal testing did not show any carcinogenic effects.

Toxicity to reproduction assessment

**Dipotassium peroxodisulphate**

No toxicity to reproduction Animal testing showed no reproductive toxicity. Information given is based on data obtained from similar substances

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

No toxicity to reproduction Information given is based on data obtained from similar substances. Animal testing showed no reproductive toxicity.

Assessment teratogenicity

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

Animal testing showed no developmental toxicity.

**Dipotassium peroxodisulphate**

Animal testing showed no developmental toxicity. Information given is based on data obtained from similar substances

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

Information given is based on data obtained from similar substances. Animal testing showed no developmental toxicity.

## 11. Toxicological Information

## Human experience

Excessive exposures may affect human health, as follows:

Inhalation	Discomfort, Cough, Nose bleeding
Skin contact	Irritation, Burn, Erythema
Eye contact	Corrosion
Ingestion	Stomach: Gastrointestinal disturbance, Inflammation

## 12. Ecological Information

## 12.1 Toxicity

## Toxicity to fish

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

LC50 / 96 h Cyprinodon variegatus (sheepshead minnow): 1.09 mg/l

Method: Directive 67/548/EEC, Annex V, C.1.

**Dipotassium peroxodisulphate**

LC50 / 96 h Oncorhynchus mykiss (rainbow trout): 76.3 mg/l

Method: US EPA Test Guideline OPP 72-1

Information given is based on data obtained from similar substances.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

LC50 / 96 h Pimephales promelas (fathead minnow): 2,120 mg/l

Information given is based on data obtained from similar substances.

## Toxicity to aquatic plants

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

ErC50 / 96 h / Selenastrum capricornutum (green algae): > 1 mg/l

Method: OECD Test Guideline 201

NOEC / 72 h Selenastrum capricornutum (green algae): 0.5 mg/l

**Dipotassium peroxodisulphate**

NOEC / 72 h Pseudokirchneriella subcapitata (green algae): 39.2 mg/l

Method: OECD Test Guideline 201

Information given is based on data obtained from similar substances.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

EC50 / 72 h Desmodesmus subspicatus (green algae): > 100 mg/l

Method: OECD Test Guideline 201

Information given is based on data obtained from similar substances.

NOEC / 72 h Desmodesmus subspicatus (green algae): > 100 mg/l

Method: OECD Test Guideline 201

Information given is based on data obtained from similar substances

## Toxicity to aquatic invertebrates

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

EC50 / 48 h Daphnia magna (Water flea): 3.5 mg/l

Method: OECD Test Guideline 202

**Dipotassium peroxodisulphate**

EC50 / 48 h Daphnia magna (Water flea): 120 mg/l

Method: US EPA Test Guideline OPP 72-2

Information given is based on data obtained from similar substances.

**Tetra[carbonato(2-)]dihydroxypentamagnesium**

EC50 / 48 h Daphnia magna (Water flea): 140 mg/l

Information given is based on data obtained from similar substances.



**12. Ecological Information**

Chronic toxicity to fish

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

NOEC / 37 d Cyprinodon variegatus (sheepshead minnow): 0.222 mg/l

Chronic toxicity to aquatic Invertebrates

**Pentapotassium bis(peroxymonosulphate) bis(sulphate)**

NOEC / 28 d Americamysis bahia (mysid shrimp): 0.267 mg/l

**12.2 Persistence and degradability**Biodegradability Pentapotassium bis(peroxymonosulphate) bis(sulphate)  
BiodegradableDipotassium peroxodisulphate  
Readily biodegradable

Tetra[carbonato(2-)]dihydroxypentamagnesium

The methods for determining biodegradability are not applicable to inorganic substances.

Physico-chemical removability hydrolyses

**12.3 Bioaccumulative potential**

Bioaccumulative potential No data available

**12.4 Mobility in soil**

Mobility in soil No data available

**12.5 PBT and PvB assessment**PBT and PvB Contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
Contains no substance considered to be very persistent and very bioaccumulating (vPvB).**12.6 Other adverse effects**

Other adverse effects No data available

**13. Disposal Considerations****13.1 Waste treatment methods**

Product: Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging If recycling is not practicable, dispose of in compliance with local regulations.

**Classification**

Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority

**14. Transport Information****ADR**

14.1 UN Number	3260
14.2 UN proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Monopersulfate Compound)
14.3 Transport hazard class(es)	8
14.4 Packaging Group	II
14.5 Environmental hazards	For further information see section 12
14.6 Special precautions for user	Tunnel restriction code: ( E)

14. Transport Information

IATA\_C /IMDG

14.1 UN Number	3260
14.2 UN proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Monopersulfate Compound)
14.3 Transport hazard class(es)	8
14.4 Packaging Group	II
14.5 Environmental hazards	For further information see section 12
14.6 Special precautions for user	no data available

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

15. Regulatory information

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

Other regulations Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

16. Other information

Full text of H-statements referred to under sections 2 and 3

- H272 May intensify fire; oxidizer.
- 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.

Restricted to professional users. Attention - Avoid exposure- obtain special instructions before use

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability, or fitness for any particular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from use of this information Users should make their own investigations to determine the suitability of the information for their particular needs and uses.

█ Indicates updated section