

# MATERIAL SAFETY DATA SHEET

## Product Name: Purisan® Extra Chlorine Granules

**PLEASE DESTROY ALL PREVIOUS ISSUES INCLUDING SODIUM ISOCYANURATE**

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Synonyms: Chlorine Granules (FiClor, Proswim) CDB Clearon,. Sodium dichloroisocyanurate dihydrate

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Range (%)</u>	<u>CAS No</u>	<u>Class</u>	<u>R. No.</u>	<u>EINECS</u>
Sodium Dichloroisocyanurate, dihydrate	99-100	051580-86-0	Xn.N	22.31.36/37.50/53	220-767-7
Sodium Chloride	0 – 1				231-593-8

### 3. HAZARDS IDENTIFICATION – **Harmful if swallowed. Irritant to eyes and respiratory system. Dangerous for the Environment**

Inhalation	:	Acute exposure may cause: severe irritation to the respiratory tract resulting in lung edema which can cause shortness of breath, chest pain and impaired lung function. Inhalation of high concentrations can result in permanent lung damage.
Skin Contact	:	Acute exposure can cause severe irritation and/or chemical burns Chronic exposure effects would be similar to those from acute exposure except for effects secondary to tissue destruction. Prolonged skin exposure may cause skin destruction with impaired skin regeneration at the site of contact.
Eye Contact	:	Exposure may cause severe irritation and/or chemical burns with corneal damage. Impairment of vision is possible.
Ingestion	:	Ingestion can cause irritation and/or chemical burns to the gastro-intestinal tract characterised by nausea, vomiting, diarrhoea, abdominal pain, bleeding and ulceration. Chronic toxicity via this route is unlikely due to its corrosive nature
NFPA Ratings (Scale 0 - 4)	:	Health = 2, Fire - 0, Reactivity - 1 Special Hazard warning – oxidiser

### 4. FIRST AID MEASURES

Inhalation	:	If person experiences nausea, headache or dizziness, the person should stop work immediately and move to fresh air until these symptoms disappear. Use support respiration if needed. Seek medical advice.
Skin Contact	:	Immediately flush with water for at least 15 minutes. Seek medical advice. If clothing comes in contact with the product, the clothing should be removed immediately and should be laundered before re-use.
Eye Contact	:	Immediately flush with large amounts of water for at least 15 minutes occasionally lifting the upper and lower eyelids. Seek immediate medical attention.
Ingestion	:	Immediately drink large quantities of water. <b>DO NOT INDUCE VOMITING.</b> Do not give anything by mouth if the person is unconscious or if having convulsions. Seek immediate medical attention
Medical Note	:	Medical conditions aggravated by exposure: Respiratory, cardiovascular and skin diseases.

### 5. FIRE FIGHTING MEASURES

Fire Fighting techniques and comments:	Cool exposed containers with water.
Suitable Media:	On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams.
Unsuitable Media:	Do not use dry chemical extinguisher containing ammonia compounds.
Exposure Hazards:	Toxic gases may arise from fire.
RPE/PPE:	Wear self-contained breathing apparatus and protective equipment.

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### 6. ACCIDENTAL RELEASE MEASURES

Transport Emergency Action      Stop Engine. Notify Police and Fire Services immediately.  
No naked lights. No smoking. Warn other road users.  
Keep public away from danger areas. Stay upwind.

Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur.

Vapours may be suppressed by the use of a water fog.

This material is heavier than water and soluble in water. Stop flow of material into water source as soon as possible. Begin monitoring for available chlorine and pH immediately.

Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry, dedicated equipment and place in a clean dry container.

Additional respiratory protection is necessary when a small spill involving this product occurs (see Section 8). All other responses to this material require the use of a self-contained breathing apparatus. To prevent personal contact with this material, wear additional protection clothing (see Section 8 for specific clothing and compatible materials).

If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist. Inform Fire Brigade.

### 7. HANDLING AND STORAGE

Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Store in a clean dry, well ventilated area.

Do not store in temperatures above: 60°C (140°F)

Product Stability and Compatibility

Shelf Life Limitations:	Indefinite if stored at room temperature
Incompatible materials for packaging:	Paper, cardboard
Incompatible materials for storage and transport:	Other oxidisers, organic materials, reducing agents, acids and bases

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Personal Protection for use of product:

Respiratory Protection:      Wear half-face mask respirator with safety goggles or a full-face respirator with a chlorine cartridge and a dust/mist type prefilter.  
Ventilation:                      Use local exhaust ventilation to minimise dust levels.  
Skin/eye Protection:          Chemical goggles; neoprene gloves, boots and apron; neoprene or other impermeable suit.  
Hygiene:                          Always wash thoroughly after handling

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:                      White, granular powder/tablets with mild chlorine-like odour.  
Boiling Point:                    Not applicable  
Decomposition:                  Begins to lose 1 mole water at approx. 50°C (122°F); second mole water at 95°C (194°F); decomposes at 240-250°C (464-482°F)  
Specific Gravity:                0.96 at 20°C  
Bulk Density:                    0.9-0.95  
pH of 1% solution:              6.0-6.5  
Vapour Pressure @ 25°C:      Not applicable

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Solubility in Water: 25gl/100ml at 30°C  
Volatiles, % by volume: Not applicable  
Evaporation Rate: Not applicable  
Vapour Density: Not applicable  
Molecular Weight: 256  
Odour: None to mild chlorine-like  
Coefficient of oil/water  
Distribution: Not applicable

### 10. STABILITY AND REACTIVITY

#### Conditions under which the product may be unstable

Temperatures above: Begins to lose 1 mole water at approx. 50°C (122°F); second mole water at 95°C (194°F); decomposes at 240-250°C (464-482°F)  
Hazardous Polymerisation: Will not occur  
Incompatible Materials: Other oxidisers, nitrogen containing compounds, dry fire extinguishers containing mono-ammonium phosphates.  
Hazardous Decomposition Products: NCl<sub>3</sub>, Cl, NO, CO<sub>2</sub>  
Nitrogen trichloride, chlorine, oxides of nitrogen, oxides of carbon

### 11. TOXICOLOGICAL INFORMATION

Warning statements and warning properties.  
Harmful if inhaled or ingested. Harmful if exposed to skin or eyes.  
Animal Toxicology:  
Acute Toxicity:  
Inhalation LC50: >50 mg/l (rats, one hr exposure)  
Oral LD50: 735 mg/kg (rat)  
Dermal LD50: >2 g/kg (rabbit)  
Not known to be a reproductive toxin  
Not known to be carcinogenic  
Not known to be a mutagen

### 12. ECOLOGICAL INFORMATION

Mobility: Soluble in water  
Degradability:  
Accumulation:  
Short/long term:  
Other: Wildlife LC50's: Rainbow trout (96 hrs. exposure) - 0.22 mg/l  
Bluegill sunfish (96 hrs. exposure) - 0.28 mg/l  
Daphnia magna (24 hrs. exposure) - 0.55 mg/l  
Mallard Duck (8 day dietary exposure) - >10,000 ppm  
Mallard Duck (LD50) - 3.3 g/kg  
Bobwhite quail (LD50) - 730 mg/kg  
Bobwhite quail (8 day dietary exposure) - >10,000 ppm

### 13. DISPOSAL CONSIDERATIONS

Use only licensed waste hauliers and disposal contractors, in accordance with Waste Disposal Regulations. In doubt, consult Local Authorities.

### 14. TRANSPORT INFORMATION

S.I. Number : Not regulated for road transport SP135 – ADR

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## Product Name: Purisan® Extra Chlorine Granules

Conveyance Classification :  
Packaging Group :  
ADR Classification :  
ADR HIN :  
IMCO Class :  
IMCO Sub-Risk :  
Hazchem Code :  
Tremcard Number :  
IMDG Page Number :  
Marine Pollutant :  
Air Transport :

### 15. REGULATORY INFORMATION

LABEL: SODIUM DICHLORO ISOCYANURATE DIHYDRATE  
HARMFUL AND DANGEROUS FOR THE ENVIRONMENT

Primary Risks : Harmful  
Secondary Risks : Dangerous for the Environment  
Label Risk Phrases :R22: Harmful if swallowed  
:R31: Contact with acid liberates toxic gas  
:R36/37: Irritating to eyes and respiratory system  
:R50/53: Very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment  
Label Safety Phrases :S2: Keep out of reach of children  
:S8: Keep container dry  
:S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
:S41: In case of fire and/or explosion, do not breathe fumes  
:S60: This material and its containers must be disposed of as hazardous waste  
:S61: Avoid release to the environment. Refer to special instructions/safety data sheet  
CAS Number :51580-86-0  
EINICS Number :220-767-7  
Customs Tariff :-  
UK Customs Number :-  
EMS Number :-  
MFAG Number :-  
CHIP Index Number :613-030-01-7

Recipients of the Material Safety Data Sheet must make their own assessment of workplace risk as required by other Health and Safety legislation.

### 16. OTHER INFORMATION

**Date of issue: 18<sup>th</sup> March 2009**

*This Material Safety Data Sheet is distributed solely for the purpose of the Health and Safety at Work Act 1974 and associated regulations. It does not constitute any warranty or guarantee as to the quality, properties, condition or otherwise of the product. It has been prepared from the best knowledge available to us and we shall not be liable for any insufficiency or inaccuracy in such information in any case whatsoever.*