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

1.1 Product Identifier Bromine Granules

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

Uses: For disinfection of pool and spa water.
Restrictions: At this time we do not yet have information on identified restrictions

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

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	Hazard Statements
Acute Tox. 4 *	H302
Eye Irrit. 2	H319
STOT SE 3	H335
STOT SE 3	H400
Aquatic Acute 1	H410
Aquatic Chronic 1	

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

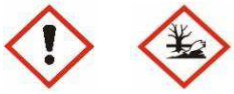
Most important adverse effects

Human Health: See section 11 for toxicological information.
Physical & Chemical Hazards: See section 9 for toxicological information.
Potential environmental effects: See section 12 for toxicological information.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols:



Signal word: Warning

Hazard statements:

H302	Harmful if swallowed.
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.
EUH031	Contact with acid liberates toxic gas

(continued on Page 2)

2. Hazard Identification…cont

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

Precautionary statements:

P102	Keep out of reach of children
P273:	Avoid release to the environment
P402	Store in a dry place.
P405:	Store locked up
P305+351+338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

Hazardous components which must be listed on the label
Sodium Dichloroisocyanurate Dihydrate

2.3 Other Hazards No other information is available.

3. Composition/information on ingredients

3.2 Mixture
Chemical nature: Granules

Chemical Name	Index-No.	CAS-No.		EC-No.
Sodium Dichloroisocyanurate Dihydrate,	613-030-01-7	51580 - 86 - 0	H302, H319, H335, H400, H410	220 - 767 - 7
Sodium Bromide	231-599-9	7647-15- 6		

See Section 16

4. First Aid measures

4.1 Description of first aid measures

General Advice: Take off all contaminated clothing immediately.

If inhaled: : Move to fresh air. Remove contaminated clothing and loosen remaining clothing. Keep at rest until fully recovered. If breathing is laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. if breathing has stopped apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. Seek medical advice. In severe cases pulmonary oedema can be delayed by up to 48 hours.

In case of skin contact: Drench the skin with plenty of water. Remove contaminated clothing and wash before reuse. If large areas of the skin is damaged or if irritation persists seek medical attention

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

If swallowed: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed
Can cause damage to the eyes
May cause irritation

4.3 Indication of immediate medical attention and special treatment needed Treat Symptomatically.

5. Fire fighting measures

5.1 Extinguishing media:

Suitable media: Water spray or fog (large quantities available)

5.2 Special hazards arising from the substance or mixture

Specific Hazards : Gives off irritating or toxic fumes (or gases) in a fire.
Decomposition products may include nitrogen and carbon oxides
Decomposition products include oxygen and chlorine.

5.3 Advice for fire-fighters

Protective equipment: Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Thoroughly decontaminate fire-fighting equipment including all fire fighting wearing apparel after the incident.

Further Information: Collect contaminated fire extinguishing water separately.

6. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment. Provide adequate ventilation.
For personal protection see section 8.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration
If the product contaminates rivers and lakes or drains inform respective authorities
Local authorities should be advised if significant spillages cannot be contained

6.3 Methods and materials for containment and cleaning up

Clean-up procedures: Sweep or shovel-up spillage and remove to a safe place. Prevent formation of dust.
Do not absorb spillage in sawdust or other combustible material. Neutralise with Soda ash.
Dilute with a large volume of water. Flush spill area with copious amounts of water.
Ventilate the area and wash spill site after material pick-up is complete

6.4 Reference to other sections For personal protection see section 8

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Strong oxidising agent. DO NOT MIX WITH OTHER CHEMICALS. Mix only with water. Never add water to product. Always add product to water. Use clean dry dispensing equipment. Avoid contact with the skin and the eyes.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the work day. Take off all contaminated clothing immediately. Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities.

Storage: Keep this product in original, sealed container when not in use. Store in a cool, dry, well-ventilated area.

Fire protection: Normal measures for preventive fire protection

Further information: Keep away from children

Common storage: Keep away from food, drink and animal feeding stuffs. Keep away from combustible material

7.3 Specific end uses

Specific use(s) No information is available.

8. Exposure control/personal protection

8.1 Control parameters

Regulatory List:	EH40 (8 hour TWA)	EH40 (15 min TWA)
Value:	1.5 mg/m^3	2.9 mg/m^3

8.2 Exposure controls

Engineering measures Fume cupboard required when vapours/aerosol are generated.

Personal protective equipment

Respiratory protection: Use respiratory protection for chlorine and dust inhalation protection.

Hand protection: The glove material has to be impermeable to the product/the substance/preparation.
Take note of the information given by the producer concerning permeability, break through times, and of special and of special working conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first sign of wear.
Due to missing tests no recommendation to the glove material can be given.

Eye protection: Tightly fitting safety goggles.

Skin and body protection: Plastic apron, sleeves, boots-if handling large quantities

Environmental exposure controls

General advice: General room ventilation plus local exhaust should be used to maintain exposure below TLV.
Eyewash and emergency shower facilities recommended. Remove and wash contaminated clothing before reuse.
Local authorities should be advised if significant spillages cannot be contained

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Granules
Colour:	Whitish
Odour:	Characteristic chlorine
pH @ 20^{o}C:	7.0 - 10% (aqueous solution)
Melting Point	Not Known
Boiling point/boiling range:	Not Applicable
Vapour pressure:	Not known
Vapour density:	Not known
Specific gravity	Not known
Water solubility:	260 gm/litre @25 ^{o}C
Partition coeffcient:n-octanol/water:	Not known
Flash point	Not known

Non explosive
Contact with other material may cause fire

Evaporation rate	Not known
Viscosity	Not applicable

9.2 Other Information

No further information

10. Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Chemical stability: No information available

(Continued on Page 5)

10. Stability and reactivity

10.3 Possibility of hazardous reactions

Hazardous reactions: Gives off hydrogen by reaction with metals. Reacts exothermic with water.

10.4 Conditions to avoid

Conditions to avoid: Damp or slightly wet conditions may slowly liberate hazardous gases. (will gradually degenerate to Nitrogen Trichloride)

10.5 Incompatible materials

Materials to avoid: Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidisable material such as organic compounds, reducing agents, Nitrogen containing compounds, Sodium or Calcium hypochlorite, other oxidisers, acids and alkalis.

10.6 Hazardous decomposition products

Haz. Decomp Products: Decomposes above 240^{o}C forming chlorine, nitrogen, trichloride, nitrogen oxides, carbon dioxide, cyanates and carbon monoxides.

11. Toxilogical Information

11.1 Information on toxilogical effects

LD50 (oral,rat) >1400 mg/kg
LDLo (human) 3570 mg/kg

Inhalation: May cause respiratory tract irritation, shortness of breath, headache and delayed pulmonary oedema.

Contact with skin: Causes irritation - In cases of severe exposure, dermatitis may develop

Contact with eyes: Causes severe irritation - Can cause damage to the eyes

Carcinogenicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

12. Ecological Information

12.1 Toxicity

Highly toxic to aquatic life: DO NOT discharge into lakes, ponds or streams. DO NOT discharge into public waters unless in accordance with consent to discharge orders.

Acute toxicity

	Test			
Fish	LC50	96h	1,000	mg/l
Daphnia magna	EC50	48h	1,000	mg/l

12.2 Persistence and degradability

Persistence and degradability: No data available

12.3 Bioaccumlative potential

Bioaccumlative potential: Not expected to bioaccumulate

12.4 Mobility in soil

Mobility in soil: soluble in water, predicted to have high mobility in soil.

12.5 Results of PBT and PvB assessment

PBT & PvB: No data available

12.6 Other adverse effects

Remarks: Harmful effects to aquatic organisms due to pH shift
Neutralization is necessary before waste water is discharged into water treatment plants.

13. Disposal Considerations

13.1 Waste treatment methods

Disposal should be in accordance with local, state or national legislation
Avoid release to the environment
Do not allow to enter public sewers and watercourses
This material and/or its container must be disposed of as hazardous waste
Do not reuse empty containers without commercial cleaning or reconditioning

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

14.1 UN Number UN3077

14.2 UN proper shipping name 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID N.O.S. (SODIUM DICHLOROISOCYANURATE DIHYDRATE)

14.3 Transport hazard class(es)

Class	9
Classification Code	M7
Hazard label	90
Transport Category	3
LQ	5kg

14.4 Packaging Group III

14.5 Environmental hazards

Environmentally Hazardous	Yes
Marine Pollutant	Yes

14.6 Special precautions for user Not applicable

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

The transportation of this product, containing sodium dichloroisocyanurate dihydrate, is not regulated by IMDG (sea), ADR (road), RIL (rail), ICAO/IATA (air, or USDOT. It should not be confused with Dichloroisocyanuric acid salts, UN2465, which is a Dangerous Goods (Hazardous Material).

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.
This Safety Data Sheet is provided in compliance with REACH Regulation (EC) No 1907/2006

15.2 Chemical Safety Assessment

No information available

16. Other information

H302	Harmful if swallowed.
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.
EUH031	Contact with acid liberates toxic gas

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.

Rev 7

Indicates updated section.