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**SAFETY DATA SHEET**

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

## 1.1 Product identifier

- Product Name: Spa Bromine Granules
- Product Part Number: 013
- Contains sodium dichloroisocyanurate dihydrate

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

- Use of the substance/mixture: Pool / spa treatment; Biocide
- Use advised against: No information available

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

- Name of Supplier: Plastica Ltd
- Address of Supplier: Perimeter House  
Napier Road  
St Leonards-on-Sea  
East Sussex  
United Kingdom  
TN38 9NY
- Telephone: +44 (0) 1424 857857
- Email: Info@plasticapools.net

## 1.4 Emergency telephone number

- Emergency Telephone: 0800 043 0891 (technical)  
0800 043 0892 (emergency)

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**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; EUH031
- Additional information: For full text of Hazard and EU Hazard statements: see section 16

## 2.2 Label elements



GHS07



GHS09

- Signal Word: Warning
- Symbols: GHS07; GHS09
- Hazard statements
  - H302 - Harmful if swallowed.
  - H319 - Causes serious eye irritation.
  - H335 - May cause respiratory irritation.
  - H410 - Very toxic to aquatic life with long lasting effects.

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**SECTION 2: Hazards identification (....)**

- Precautionary statements
  - P102 - Keep out of reach of children.
  - P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
  - P271 - Use only outdoors or in a well-ventilated area.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P501 - Dispose of contents/container to an authorised waste collection point
- Supplemental Hazard Information (EU)
  - EUH031: Contact with acids liberates toxic gas.

## 2.3 Other hazards

- Marine pollutant
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**SECTION 3: Composition/information on ingredients**

## 3.1 Substances

## 3.2 Mixtures

- troclosene sodium, dihydrate
    - Concentration: 90 - 100%
    - CAS Number: 51580-86-0
    - EC Number: 220-767-7
    - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; EUH031
  - sodium bromide
    - Concentration: 1 - 10%
    - CAS Number: 7647-15-6
    - EC Number: 231-599-9
    - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Not Classified
- 

**SECTION 4: First aid measures**

## 4.1 Description of first aid measures

- Contact with skin
  - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water
  - Contaminated clothing should be laundered before reuse
  - If skin irritation or rash occurs: Get medical advice/attention.
- Contact with eyes
  - If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
  - Irrigate eyes thoroughly whilst lifting eyelids
  - Remove contact lenses, if present and easy to do. Continue rinsing.
  - Get immediate medical advice/attention.
- Ingestion
  - Rinse mouth with water (do not swallow)
  - Give 200-300mls (half pint) water to drink

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**SECTION 4: First aid measures (....)**

Never give anything by mouth to an unconscious person  
Do not induce vomiting unless directed by medical personnel.  
If vomiting occurs turn patient on side  
Get immediate medical advice/attention.

- Inhalation  
Remove person to fresh air and keep comfortable for breathing.  
If breathing is difficult, oxygen should be given by a trained person  
Get medical advice/attention.

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

- Contact with eyes  
Causes redness and irritation
- Contact with skin  
May cause redness and irritation
- Ingestion  
May cause nausea/vomiting
- Inhalation  
Causes severe irritation  
May cause breathing difficulty

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

- Treat symptomatically
- 

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- In case of fire: use water or foam to extinguish.
- DO NOT USE dry extinguishers containing ammonium compounds such as dry powder.

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

- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include chlorine
- Decomposition products may include hydrogen chloride
- Decomposition products may include nitrogen oxides

**5.3 Advice for firefighters**

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
  - Shut off all ignition sources
  - Keep container(s) exposed to fire cool, by spraying with water
  - Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

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**SECTION 6: Accidental release measures (....)**

- Personal precautions for non-emergency personnel: Wear protective clothing as per section 8; Shut off all ignition sources; Avoid formation of dust; Avoid contact with skin and eyes; Do not breathe dust/fume/gas/mist/vapours/spray; Eyewash bottles should be available; Wash thoroughly after handling.; Evacuate the area and keep personnel upwind
- Personal precautions for emergency responders: Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

**6.2 Environmental precautions**

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

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

- Do not mix with water
- Sweep or shovel-up spillage and remove to a safe place
- Place in appropriate container
- Seal containers and label them
- Do not absorb spillage in sawdust or other combustible material
- Avoid formation of dust
- To be disposed of as hazardous waste

**6.4 Reference to other sections**

- See Sections 8 and 13
- 

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

- Ensure adequate ventilation
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Do not get in eyes, on skin, or on clothing.
- Do not eat, drink or smoke when using this product.
- Do not add water to the product, always add the product to large quantities of water.
  
- Eyewash bottles should be available
- Wash thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse

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

- Keep in a cool, dry, well ventilated place
- Protect from moisture
- Substance is hygroscopic
- Keep away from food, drink and animal feedingstuffs
- Keep container tightly closed
- Keep away from heat and sources of ignition

**7.3 Specific end use(s)**

- Pool / spa treatment
  - Biocide
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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

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**SECTION 8: Exposure controls/personal protection (....)**

- WEL (short term): 0.5 ppm (As chlorine)
- WEL (short term): 1.5 mg/m<sup>3</sup> (As chlorine)
- troclosene sodium, dihydrate
  - DNEL (inhalational) 8.11 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects
  - DNEL (dermal) 2.3 mg/kg (bw/day) Industry, Long Term, Systemic Effects
  - DNEL (inhalational) 1.99 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects
  - DNEL (dermal) 1.15 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
  - PNEC aqua (freshwater) 0.17 ug/l
  - PNEC aqua (marine water) 1.52 mg/l
  - PNEC aqua (intermittent releases) (freshwater) 1.7 ug/l
  - PNEC (STP) 590 ug/l
  - PNEC sediment (freshwater) 7.56 mg/kg
  - PNEC terrestrial (soil) 756 ug/kg
- sodium bromide
  - DNEL (inhalational) 4.75 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects
  - DNEL (dermal) 95 mg/kg (bw/day) Industry, Long Term, Systemic Effects
  - DNEL (dermal) 95 mg/kg (bw/day) Industry, Acute/Short Term, Systemic Effects
  - DNEL (inhalational) 1.66 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects
  - DNEL (dermal) 95 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
  - DNEL (dermal) 95 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects
  - DNEL (oral) 475 ug/kg (bw/day) Consumer, Long Term, Systemic Effects
  - DNEL (oral) 42 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects
  - PNEC aqua (freshwater) 150 ug/l
  - PNEC aqua (intermittent releases) (freshwater) 208 ug/l
  - PNEC aqua (marine water) 75 ug/l
  - PNEC (STP) 100 mg/l
  - PNEC terrestrial (soil) 3.2 mg/kg

**8.2 Exposure controls**

- Do not eat, drink or smoke when using this product.
- Engineering controls should be provided which maintain airborne concentrations as low as practicable
- In case of insufficient ventilation, wear suitable respiratory equipment
- Wear suitable protective clothing, including eye/face protection and gloves (neoprene or nitrile are recommended)
- The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
- Glove material: nitrile rubber
  - Thickness: 0.11 mm
  - Breakthrough time: 480 minutes
  - Reference: Manufacturer
- Wear safety glasses approved to standard EN 166.
- When handling this substance, e.g. sampling, wear goggles giving complete eye protection
- Ensure eyewash stations and safety showers are close to hand.

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**SECTION 8: Exposure controls/personal protection (....)**


Goggles



Gloves



Respirator



Suit



Boots



No Flames



No Smoking

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**SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

- Appearance: White; granules
- Odour: Smells of chlorine
- Odour threshold: No information available
- pH: 6.5
- Melting point/freezing point: 240 - 250°C (with decomposition)
- Initial boiling point and boiling range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability (solid,gas): No information available
- Upper/lower flammability or explosive limits: No information available
- Vapour Pressure: No information available
- Vapour Density: No information available
- Relative Density: 1 g/cm<sup>3</sup>
- Solubility(ies): 262 g/l
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: No information available
- Decomposition temperature: 240-250 °C
- Viscosity: No information available
- Explosive Properties: May form explosive dust/air mixtures
- Oxidising Properties: Not oxidising

## 9.2 Other information

- None
- 

**SECTION 10: Stability and reactivity**

## 10.1 Reactivity

- Stable under normal conditions

## 10.2 Chemical stability

- Considered stable under normal conditions
- No decomposition if stored normally.

## 10.3 Possibility of hazardous reactions

- Reacts with metals liberating hydrogen
- Contact with acids liberates toxic gas.

## 10.4 Conditions to avoid

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.
- Avoid contact with moisture
- Avoid contact with acids and alkalis

## 10.5 Incompatible materials

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**SECTION 10: Stability and reactivity (....)**

- Incompatible with combustible material
- Do not allow product to come into contact with water or moisture
- Incompatible with acids and alkalis
- Incompatible with nitrogen compounds

**10.6 Hazardous decomposition products**

- Decomposition products may include toxic and irritant fumes
  - Decomposition products may include chlorine
  - Decomposition products may include hydrogen chloride
  - Decomposition products may include nitrogen oxides
- 

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

- Acute Toxicity  
Harmful if swallowed.  
Classification based on calculation and concentration thresholds  
LD50 (oral, rat) (female) (sodium dichloroisocyanurate dihydrate) 1671 mg/kg bw  
LD50 (oral, rat) (male) (sodium dichloroisocyanurate dihydrate) 2094 mg/kg bw  
LD50 (dermal, rabbit) (sodium dichloroisocyanurate dihydrate) >5000 mg/kg bw  
LC50 (inhalation, rat) (sodium dichloroisocyanurate dihydrate) 270 - 1 170 mg/m<sup>3</sup>/4h  
LD50 (oral, rat) (sodium bromide) 4200 mg/kg bw  
LD50 (dermal, rabbit) (sodium bromide) 2000 mg/kg bw
- Skin corrosion/irritation  
Based on available data, the classification criteria are not met
- Serious eye damage/irritation  
Causes serious eye irritation.  
Classification based on calculation and concentration thresholds
- Respiratory or skin sensitisation  
Based on available data, the classification criteria are not met
- Germ cell mutagenicity  
No evidence of mutagenic effects
- Carcinogenicity  
No evidence of carcinogenic effects
- Reproductive toxicity  
No evidence of reproductive effects
- Specific target organ toxicity (STOT) - single exposure  
May cause respiratory irritation.  
Classification based on calculation and concentration thresholds
- Specific target organ toxicity (STOT) - repeated exposure  
Based on available data, the classification criteria are not met
- Aspiration hazard  
Based on available data, the classification criteria are not met
- Contact with eyes  
Causes redness and irritation  
May cause blurred vision

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**SECTION 11: Toxicological information (....)**

- Contact with skin  
May cause redness and irritation
  - Ingestion  
The ingestion of significant quantities may cause damage to digestive system  
The ingestion of significant quantities may cause nausea/vomiting
  - Inhalation  
May cause respiratory irritation  
May cause breathing difficulty
- 

**SECTION 12: Ecological information**

## 12.1 Toxicity

- Very toxic to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds
- troclosene sodium, dihydrate  
LC50 (fish): 0.23 - 8 000 mg/l (96 hr)  
EC50 (aquatic invertebrates) 170 ug/l (48 hr)  
EC50 (aquatic algae) 100 mg/l (72 hr)
- sodium bromide  
LC50 (fish): 440 - 24 000 mg/l (96 hr)  
EC50 (aquatic invertebrates) 1 - 5.8 g/l (48 hr)  
EC50 (aquatic algae) 10 g/l (96 hr)

## 12.2 Persistence and degradability

- No information available

## 12.3 Bioaccumulative potential

- No information available

## 12.4 Mobility in soil

- Do not allow to penetrate the ground/soil.

## 12.5 Results of PBT and vPvB assessment

- No information available

## 12.6 Other adverse effects

- Do not empty into drains
- 

**SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

- This material and/or its container must be disposed of as hazardous waste
- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Do not reuse empty containers without commercial cleaning or reconditioning

## 13.2 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.



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**SECTION 13: Disposal considerations (....)**

- The waste must be identified according to the List of Wastes (2000/532/EC)
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**SECTION 14: Transport information**


Dangerous Substance



ENVIRONMENTALLY HAZARDOUS

## 14.1 UN number

- UN No.: 3077

## 14.2 UN proper shipping name

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Sodium Dichloroisocyanurate Dihydrate)

## 14.3 Transport hazard class(es)

- Hazard Class: 9

## 14.4 Packing group

- Packing Group: III

## 14.5 Environmental hazards

- Marine pollutant

## 14.6 Special precautions for user

- No special precautions are required for this product

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not applicable

## 14.8 Road/Rail (ADR/RID)

- ADR UN No.: 3077
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Sodium Dichloroisocyanurate Dihydrate)
- ADR Hazard Class: 9
- ADR Packing Group: III
- Tunnel Code: Not applicable

## 14.9 Sea (IMDG)

- IMDG UN No.: 3077
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Sodium Dichloroisocyanurate Dihydrate)
- IMDG Hazard Class: 9
- IMDG Pack Group.: III

## 14.10 Air (ICAO/IATA)

- ICAO UN No.: 3077
  - Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Sodium Dichloroisocyanurate Dihydrate)
  - ICAO Hazard Class: 9
  - ICAO Packing Group: III
- 

**SECTION 15: Regulatory information**

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

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**SECTION 15: Regulatory information (....)**

- This Safety Data Sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe
- The Hazardous Waste (England and Wales) Regulations 2005 apply in the UK
- This product is covered by EU Directive 2012/18/EU (the Seveso III Directive)

## 15.2 Chemical safety assessment

- A REACH chemical safety assessment has not been carried out
- 

**SECTION 16: Other information**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of PLASTICA'S limited knowledge and belief, accurate, and reliable as of the date of authorisation of this safety data sheet. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to be satisfied as to the suitability and completeness of such information for the product as used.

Revision No. 2.1.0. Revised July 2017.

Changes made: Updated to conform to latest version of REACH. Removal of Tunnel Code in Section 14.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

|                          |  |
|--------------------------|--|
| Acute Tox. 4, H302:      | Classification based on calculation and concentration thresholds |
| Eye Irrit. 2, H319:      | Classification based on calculation and concentration thresholds |
| STOT SE 3, H335:         | Classification based on calculation and concentration thresholds |
| Aquatic Acute 1, H400:   | Classification based on calculation and concentration thresholds |
| Aquatic Chronic 1, H410: | Classification based on calculation and concentration thresholds |

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- 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 acids liberates toxic gas

--- end of safety datasheet ---

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