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

- · 1.1 Product identifier
- · Trade name: BROMINE GRANULES
- · Registration number Mixture
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC37 Water treatment chemicals
- · Application of the substance / the mixture Water treatment
- · Uses advised against

Processes involving extreme heat use advised against.

Processes involving the use of incompatible substances - refer to section 10.

Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Complete Pool Controls Ltd

Unit 2. The Park

Stoke Orchard

Bishops Cleeve

Gloucestershire

GL52 7RS

UK

Tel: +44 (0) 8712 229081 (office hours) email: sales@cpc-chemicals.co.uk

- · Further information obtainable from: Product safety department.
- · 1.4 Emergency telephone number:

UK National Poisons Information Service. E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

- · 2.2 Label elements
- \cdot Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS03, GHS07, GHS09
- · Signal word Danger
- · Hazard-determining components of labelling:

troclosene sodium

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Safety data sheet according to 1907/2006/EC, Article 31

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· Hazard statements

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements

P102 Keep out of reach of children.

P220 Keep away from combustible materials.

P220 Keep away from acids.

P260 Do not breathe dust.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear eye protection / face protection.

· Additional information:

EUH031 Contact with acids liberates toxic gas.

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

| · I |)ai | ng | erc | ous | co | mj | pone | ents: |
|-----|-----|----|-----|-----|----|----|------|-------|
| - | | | | | | - | _ | |

CAS: 51580-86-0 troclosene sodium
EINECS: 220-767-7
Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335

>50-≤100%

· Additional information:

For the wording of the listed hazard phrases refer to section 16.

Note: This substance may be marketed in an explosive form in which case it must be evaluated using the appropriate test methods. The classification and labelling provided shall reflect the explosive properties.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

DO NOT DELAY!

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Call for a doctor immediately.

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If vomiting occurs spontaneously, keep airway clear. Drink more water when vomiting stops. Seek medical attention immediately

- · Information for doctor: Treat symptomatically and supportively.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Alcohol resistant foam

Carbon dioxide

· For safety reasons unsuitable extinguishing agents:

Water

Do not use ABC extinguishers containing nitrogen, due to risk of violent chemical reaction.

· 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

Non-combustible solid.

Freely soluble in water.

The product enhances combustion of other substances.

Ambient fire may liberate hazardous vapours or decomposition products.

- 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

· Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course in the undiluted form.

· 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Do not use combustible materials such as paper towels to clean up spills.

Do NOT absorb in saw-dust or other combustible absorbents.

DO NOT add water to spilled materials.

DO NOT use floor sweeping compounds to clean up spills.

Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up.

DO NOT attempt to reseal any contaminated drums.

DO NOT transport wet or damp material. Damp material should be neutralized to a safe state.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Do not mix with acids.

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

Avoid contact with clothing and other combustible materials.

NEVER add water to the product. Always add product to large quantities of water. Use clean dry utensils.

Do not add the product to any dispensing device containing residuals of other products.

Chlorine and chlorine compounds may be found in slight amounts in the head space of containers.

· Information about fire - and explosion protection:

Keep respiratory protective device available.

When heated up or inclused in a surroundings fire the material can decompose explosively.

Keep away from open flames.

· 7.2 Conditions for safe storage, including any incompatibilities

- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility:

Do not store together with acids.

Store away from reducing agents.

Store away from oxidising agents.

Store away from foodstuffs.

Store away from water.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store in a bunded area.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:

51580-86-0 troclosene sodium

WEL Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³

Sen; as -NCO

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Do not eat or drink while working.

Take note of assigned Workplace Exposure Limits.

• Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

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· Protection of hands:



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· Body protection:

Impervious protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

| · 9.1 | Information | on basic | e physical | and | chemical | properties |
|-------|--------------|----------|------------|-----|----------|------------|
| Co | noral Inform | ation | | | | |

General Information

· Appearance:

Form: Granulate
Colour: Whitish

Odour: Like chlorine
Odour threshold: Not determined.

 \cdot pH-value (10 g/l) at 20 °C:

 $\cdot \ Change \ in \ condition$

Melting point/freezing point: Decomposes upon heating

Initial boiling point and boiling range: Undetermined.

Flash point: Not applicable.Flammability (solid, gas): Not determined.

• Ignition temperature: >200 °C

Decomposition temperature: Not determined.
 Auto-ignition temperature: Product is not self-igniting.

• Explosive properties: Product does not present an explosion hazard.

6.6

Risk of explosion by shock, friction, fire or other sources of ignition.

· Explosion limits:

Lower: Not determined. Upper: Not determined.

· Vapour pressure: Not applicable.

• Density at 20 $^{\circ}$ C: 0.9 g/cm³

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| | (Contd. of page 5) |
|---|--|
| · Relative density | Not determined. |
| · Vapour density | Not applicable. |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with | |
| water: | Soluble. |
| · Partition coefficient: n-octanol/water: | Not determined. |
| · Viscosity: | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |
| · 9.2 Other information | NOTE: The physical data presented above are typical values and should not be construed as a specification. |

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

The product decomposes on heating, on contact with water, producing toxic fumes including chlorine and bromine.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

Strong acids and oxidising agents

Combustible materials.

Organic solvents.

· 10.6 Hazardous decomposition products:

Chlorine, Nitrogen trihloride, Hydrogen chloride, Hydrogen cyanide, Nitrogen oxide, and carbon monoxide. Decomposes at 240 degrees C forming chlorine, nitrogen trichloride, NOx, COx, cyanates.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if swallowed.

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause respiratory irritation.

- · 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.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability The organic portion of the product is biodegradable.
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

• **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

| SECTION 14: Transport information | |
|---|--|
| · 14.1 UN-Number · ADR, IMDG, IATA | UN2465 |
| · 14.2 UN proper shipping name · ADR · IMDG, IATA | 2465 Dichloroisocyanuric acid salts ENVIRONMENTALLY HAZARDOUS Dichloroisocyanuric acid salts |

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(Contd. of page 7) · 14.3 Transport hazard class(es) · ADR 5.1 Oxidising substances. · Class · Label 5.1 · IMDG, IATA 5.1 Oxidising substances. Class · Label 5.1 · 14.4 Packing group · ADR, IMDG, IATA II · 14.5 Environmental hazards: · Special marking (ADR): Symbol (fish and tree) · 14.6 Special precautions for user Warning: Oxidising substances. · Hazard identification number (Kemler code): · EMS Number: F-A,S-Q · Stowage Category H1 Keep as dry as reasonably practicable · Handling Code · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable. · Transport/Additional information: \cdot ADR · Limited quantities (LQ) 1 kg Code: E2 · Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g · Transport category · Tunnel restriction code Ε

· Limited quantities (LQ) 1 kg · Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g

· UN "Model Regulation": UN 2465 Dichloroisocyanuric acid salts, 5.1, II,

ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

P8

E1

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- · Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

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.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 4: Acute toxicity - Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

GB