Revision: 10 September 2018

SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: Summer Long/Winter Long
- Product Part Number: 033
- BPR Authorisation Number: UK-2018-1148-0003/UK-2018-1148-0004
- Contains copper (II) sulphur pentahydrate (8.8%)

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

- Use of the substance/mixture: PT02 - Disinfectants and algaecides not intended for direct application to humans or animals; For the control of algae in swimming pool water.
- 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)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
- Additional information: For full text of Hazard and EU Hazard statements: see section 16

2.2 Label elements

- Signal Word: Danger
- Symbols: GHS05; GHS09
- Hazard statements
  H318 - Causes serious eye damage.
  H410 - Very toxic to aquatic life with long lasting effects.
- Precautionary statements
  P391 - Collect spillage.
  P273 - Avoid release to the environment.
  P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or

SECTION 2: Hazards identification (....)

collection site except for empty clean containers which can be disposed of as non-hazardous waste.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

- Supplemental Hazard Information (EU)
  BPR Authorisation Number: UK-2018-1148

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	REACH Registration Number	WEL /OEL
Citric acid monohydrate	10 - 20%	5949-29-1	201-069-1	Eye Irrit. 2, H319	01-2119457026 -42-XXXX	No
Copper (II) sulphate pentahydrate	3 - 10%	7758-99-8	231-847-6	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; M factor (Acute) 10; M factor (Chronic) 10	01-2119520566 -40-XXXX	No

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
  If skin irritation or rash occurs: Get medical advice/attention.
  Contaminated clothing should be laundered before reuse
- 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 plenty of water to drink
  Never give anything by mouth to an unconscious person
  Get 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

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

- Contact with eyes
  Causes redness and swelling
  Causes burning sensation
  May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
- Contact with skin
  May cause redness and irritation
- Ingestion
  Can cause soreness and redness of the mouth and throat.
  May cause nausea/vomiting
- Inhalation
  May cause respiratory tract irritation.
  May cause coughing

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

5.2 Special hazards arising from the substance or mixture

- Gives off irritating or toxic fumes (or gases) in a fire.

5.3 Advice for firefighters

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions for non-emergency personnel: Evacuate the area and keep personnel upwind; Wear protective clothing as per section 8; Avoid contact with skin and eyes; Do not breathe dust/ fume/gas/mist/vapours/spray.; Eyewash bottles should be available; Wash thoroughly after handling.
- 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

- Evacuate the area and keep personnel upwind
- Absorb spillage in earth or sand
- Place in appropriate container
- Seal containers and label them
- Remove contaminated material to safe location for subsequent disposal
- To be disposed of as hazardous waste

6.4 Reference to other sections

- See section(s): 7, 8 & 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.
- Wear protective clothing as per section 8
- Do not eat, drink or smoke when using this product.
- 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 frost
- Keep away from heat and sources of ignition
- Keep locked up and out of reach of children
- Keep away from food, drink and animal feedingstuffs
- Keep only in the original container
- Keep container tightly closed.
- Shelf life: 2 years

7.3 Specific end use(s)

- Biocide
- For the control of algae in swimming pool water.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Citric acid monohydrate
  PNEC aqua (freshwater) 440 ug/l
  PNEC aqua (marine water) 44 ug/l
  PNEC (STP) 1 g/l
  PNEC sediment (freshwater) 34.6 mg/kg
  PNEC sediment (marine water) 3.46 mg/kg
  PNEC terrestrial (soil) 33.1 mg/kg

- Copper (II) sulphate pentahydrate
  PNEC aqua (freshwater) 7.8 ug/l
  PNEC aqua (marine water) 5.2 ug/l
  PNEC (STP) 230 ug/l
  PNEC sediment (freshwater) 87 mg/kg
  PNEC sediment (marine water) 676 mg/kg
  PNEC terrestrial (soil) 65 mg/kg

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential

- Engineering controls
  Engineering controls should be provided to prevent the need for ventilation

- Respiratory protection
  In case of insufficient ventilation, wear suitable respiratory equipment
  Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827
  Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK

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

- Eye/face protection
  Wear goggles giving complete eye protection
  If risk of splashing, wear face-shield approved to standard EN 166 1B39N
- Skin protection
  Wear protective gloves. 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.
  Wear suitable protective clothing
- Hygiene measures
  Do not eat, drink or smoke when using this product.
  Use good personal hygiene practices
  Wash thoroughly after handling.
  Contaminated work clothing should not be allowed out of the workplace.
  Ensure eyewash stations and safety showers are close to hand.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear blue/green liquid
- Odour: No information available
- Odour threshold: No information available
- pH: < 2
- Melting point/freezing point: No information available
- Initial boiling point and boiling range: No information available
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: No information available
- Vapour Pressure: 23 hPa
- Vapour Density: No information available
- Relative Density: 1.1 g/ml
- Solubility(ies): Soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature No information available
- Decomposition temperature: No information available
- Viscosity: No information available
- Explosive Properties: No information available
- Oxidising Properties: No information available

9.2 Other information

- None

SECTION 10: Stability and reactivity

10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

10.2 Chemical stability

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

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- Avoid extremes of temperature

10.5 Incompatible materials

- Incompatible with strong acids
- Incompatible with strong oxidizing substances

10.6 Hazardous decomposition products

- Decomposition products may include toxic and irritant fumes

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
  ATE mix (oral) > 2 000 mg/kg
  Based on available data, the classification criteria are not met

Chemical Name	LD50 (oral,rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
Citric acid monohydrate	3 000 mg/kg	No data available	(Rat) 2 000 mg/kg
Copper (II) sulphate pentahydrate	482 mg/kg	No data available	2 000 mg/kg

- Skin corrosion/irritation
  Based on available data, the classification criteria are not met
- Serious eye damage/irritation
  Causes serious eye damage
  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
  Based on available data, the classification criteria are not met
- 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 swelling
  Causes burning sensation
  May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

SECTION 11: Toxicological information (....)

- Contact with skin
  May cause redness and irritation
- Ingestion
  Can cause soreness and redness of the mouth and throat.
  May cause nausea/vomiting
- Inhalation
  May cause respiratory irritation
  May cause coughing

SECTION 12: Ecological information

12.1 Toxicity

- Very toxic to aquatic life with long lasting effects
- Classification based on calculation and concentration thresholds
- Citric acid monohydrate
  LC50 (fish) 440 - 760 mg/l (48 hr)
  LC50 (aquatic invertebrates) 1.535 g/l (24 hr)
- Copper (II) sulphate pentahydrate
  LC50 (fish) 2.8 - 9 150 ug/l (4 days)
  EC50 (aquatic invertebrates) 33.8 - 1 213 ug/l (48 hr)
  EC50 (aquatic algae) 16.5 - 987 ug/l (72 hr)

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulative potential

- Potential bioaccumulation

12.4 Mobility in soil

- Absorbs on soil

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

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

- The waste must be identified according to the List of Wastes (2000/532/EC)
- Hazardous Property Code(s): HP 4 Irritant; HP 14 Ecotoxic

SECTION 14: Transport information

SECTION 14: Transport information (....)

14.1 UN number

- UN No.: 3082

14.2 UN proper shipping name

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (copper sulphate pentahydrate)

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.: 3082
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (copper sulphate pentahydrate)
- ADR Hazard Class: 9
- ADR Packing Group: III
- Tunnel Code: Not applicable

14.9 Sea (IMDG)

- IMDG UN No.: 3082
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (copper sulphate pentahydrate)
- IMDG Hazard Class: 9
- IMDG Pack Group.: III

14.10 Air (ICAO/IATA)

- ICAO UN No.: 3082
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (copper sulphate pentahydrate)
- 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

- 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)
- This product is covered by the EU Biocides Regulation 528/2012 (EU BPR)
- BPR Authorisation Number: UK-2018-1148

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.

Sources of data: Information from published literature and company data

Revision No. 2.0.0. Revised September 2018.
Changes made: Revised to conform to Revised Annex II in Regulation (EU) 2015/830 and to include Authorisation Number under the EU Biocides Regulation 528/2012 (EU BPR)

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

Eye Dam. 1, H318:	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
- H318: Causes serious eye damage
- H319: Causes serious eye irritation.
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects

Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- STOT RE: Specific Target Organ Toxicity Repeated Exposure
- STOT SE: Specific Target Organ Toxicity Single Exposure
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---