

# SAFETY DATA SHEET

|                      |   |                      |       |
|----------------------|---|----------------------|-------|
| <b>Product Name:</b> | <b>3.2g Chlorine Tablet</b>                             | <b>SDS Reference</b> | ST013 |
| <b>Version No.</b> 1 | <b>Initial issue date</b> August 5 <sup>th</sup> , 2014 | <b>Revision date</b> |       |

## 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF THE COMPANY

|  |   |                                      |                                    |
|--|---|--------------------------------------|------------------------------------|
| <b>1.1 Product identifier</b>                                  | 3.2g chlorine Tablet  |                                      |                                    |
| <b>1.2 Use (s)</b>   | Disinfection and Chlorination   |                                      |                                    |
| <b>1.3 SDS Supplier</b>  | Stonehouse Tablet Mfg. Co. Ltd.<br>Nottingham Road<br>Attenborough<br>Nottingham<br>NG9 6DT |                                      |                                    |
| <b>1.4 Emergency Telephone</b>                                 | 01159 254552 (Office hrs)   | <b>Telephone</b> +44 (0) 1159 254552 | <b>Fax No:</b> +44 (0) 1159 224226 |
| <b>SDS Competent Person e-mail:</b> trevor@rising-hsande.co.uk |   |                                      |                                    |

## 2. HAZARDS IDENTIFICATION

### 2.1 CLASSIFICATION OF THE SUBSTANCE

#### 2.1.1 Classification according to 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

#### 2.1.2 Classification according to EC Directive 67/548/EEC (CHIP 4)

Xn: R22, R31  
Xi: R36/37  
N: R50,53

#### 2.1.3 Additional information

See section 16 for full text of H statements and R phrases

### 2.2 LABELLING ELEMENTS

#### 2.2.1 Labelling in accordance with EC Regulation No 1272/2008 (CLP/GHS)

Pictogram(s):



Signal word

WARNING

Hazard statement(s)

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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## 2. HAZARDS IDENTIFICATION

|                                   |                            |   |
|-----------------------------------|----------------------------|---|
| <b>Precautionary statement(s)</b> | P273                       | AVOID RELEASE TO THE ENVIRONMENT.   |
|                                   | P280                       | WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION.  |
|                                   | P301+P330+P331<br>P304+340 | IF SWALLOWED. RINSE MOUTH. DO NOT INDUCE VOMITTING.<br>IF INHALED: REMOVE TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING.  |
|                                   | P305+P351+P338<br>P337+313 | IF IN EYES. RINSE CAUSTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING.<br>IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION. DISPOSE OF CONTENTS. |
| <b>Supplementary labelling</b>    | EUH031                     | CONTACT WITH ACIDS LIBERATES TOXIC GAS  |

2.3 Other hazards None known

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Characterisation** MIXTURE OF INORGANIC SUBSTANCES

### Substances

| <u>Chemical name</u>                                   | <u>CAS-No</u> | <u>EINECS/ELINCS</u> | <u>Classification</u>   | <u>Concentration</u> |
|--|---------------|----------------------|---|----------------------|
| SODIUM DICHLOROISOCYANURATE (ANHYDROUS)                | 2893-78-9     | 220-767-7            | <b>CHIP:</b> O: R8; Xn: R22, R31; Xi: R36/37; N: R50,53<br><b>CLP:</b> Ox. Sol. 3 H272; Acute Tox. 4 H302; Eye Irrit. 2 H319; STOT. SE 3 H335; Aquatic Acute 1 H400; Aquatic Chronic 1 H410 | 50-65%               |
| ADIPIC ACID<br>REACH Reg. no.<br>01-2119457561-38-0002 | 124-04-9      | 204-673-3            | <b>CHIP:</b> Xi: R36<br><b>CLP:</b> Eye Irrit. 2 H319   | 20-30%               |

## 4. FIRST AID MEASURES

### 4.1 Description of measures

|  |  |
|--|--|
| <b>Inhalation</b>                          | Remove casualty to fresh air. If necessary, seek medical advice.   |
| <b>Skin contact</b>                        | Clean areas of skin affected with soap and plenty of water. If necessary, seek medical advice.                                 |
| <b>Eye contact</b>                         | Immediately wash out eye thoroughly with plenty of water until irritation subsides; consult an eye specialist/ophthalmologist. |
| <b>Ingestion</b>                           | If product is swallowed, do NOT induce vomiting. Drink plenty of water; if necessary, seek medical advice.                     |
| <b>4.2 Most important effects/symptoms</b> | None known   |
| <b>4.3 Immediate/special treatment</b>     | Treatment as described above. Treat symptomatically and supportively.  |

## 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media** Water. Do not use dry chemical extinguisher containing ammonia compounds. Flooding amounts of water may be required before extinguishment can be accomplished

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## 5. FIRE FIGHTING MEASURES

- 5.2 Special hazards** When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine and carbon monoxide.
- 5.3 Advice for fire fighters** Wear self-contained breathing apparatus. Cool containers with water spray. Avoid run-off water entering the drains (e.g. use barriers)

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions** In addition to respiratory protection, wear coveralls; chemical resistant gloves; chemical resistant footwear, and chemical resistant headgear for overhead exposure.
- 6.2 Environmental precautions** Do not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once.
- 6.3 Methods and materials for cleaning up** Take up as appropriate, e.g. sweep or vacuum up, into tightly closed containers. Label container and dispose of as prescribed. If spill material is still dry, do not put water directly on this product as a gas evolution may occur. This material is heavier than water. This material is soluble in water. Stop flow of material into water source as soon as possible. Begin monitoring for available chlorine and pH immediately.
- 6.4 Reference to other sections** See section 8 for personal protective equipment.

## 7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Handle in accordance with good hygiene and safety practice. Keep container tightly closed. Keep away from incompatible substances.
- 7.2 Conditions for safe storage** Store in a cool, dry, well-ventilated area, away from incompatible materials (see 'materials to avoid'). Do not store at temperatures above 60°C/140°F. Product has an indefinite shelf-life limitation.
- 7.3. Specific end use(s)** Disinfection and Chlorination

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Controls parameters** There are no occupational exposure limit values available. Comply with good practice.
- 8.2 Exposure controls**
- Engineering controls** Provide adequate ventilation (e.g. local exhaust ventilation).
- Personal protection** Observe normal standards for handling chemicals.  
Wash hands before breaks and after work.  
Wear personal protective equipment appropriate to the task (see below)
- Eye protection** Safety goggles (EN 166 or 169) if risk of eye contamination.
- Skin protection** Neoprene gloves (also consider your own risk assessment; e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken)
- Respiratory protection** When dusty conditions are encountered, wear a full-face respirator with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter
- Other protection** Protective overalls

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Basic physical and chemical properties**
- Physical form** Granular solid or tablet-form product.
- Colour** White
- Odour** Mild chlorine-like
- Odour Threshold** Not determined

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>pH</b>                                       | < 6.0   |
| <b>Boiling pt / range</b>                       | Not determined  |
| <b>Melting pt / range</b>                       | From 150 °C   |
| <b>Flash point</b>                              | Not applicable  |
| <b>Flammability</b>                             | Not applicable  |
| <b>Evaporation rate</b>                         | Not applicable  |
| <b>Explosion limits</b>                         | Lower explosive limit: 10-15g/m <sup>3</sup> (data for adipic acid) |
| <b>Auto-ignition temperature</b>                | Not determined  |
| <b>Decomposition temp.</b>                      | From 230°C  |
| <b>Density</b>                                  | Not determined  |
| <b>Vapour pressure</b>                          | Not applicable  |
| <b>Vapour density</b>                           | Not applicable  |
| <b>Water solubility</b>                         | >2.5g/100ml @ 20°C  |
| <b>Explosive properties</b>                     | Not determined  |
| <b>Oxidising properties</b>                     | Not determined  |
| <b>Partition coeff. Log<sub>Oct/water</sub></b> | 0.09 @ 20°C (data for adipic acid)                                  |
| <b>9.2 Other information</b>                    | None known  |

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                       | No data available  |
| <b>10.2 Chemical stability</b>               | Stable under normal conditions of handling. Do not package in paper or cardboard.  |
| <b>10.3 Hazardous reactions</b>              | Hazardous exothermic polymerization will not occur.  |
| <b>10.4 Conditions to avoid</b>              | Heating above decomposition temperature.   |
| <b>10.5 Incompatible material</b>            | Organic materials, reducing agents, acids, bases, nitrogen containing materials, other oxidisers, dry fire extinguishers containing mono-ammonium compounds, oils, sawdust, grease |
| <b>10.6 Hazardous decomposition products</b> | Nitrogen trichloride, chlorine, carbon monoxide.   |

## 11. TOXICOLOGICAL INFORMATION

### 11.1 information on toxicological effects

|                             |   |                         |   |
|-----------------------------|---|-------------------------|---|
| <b>Acute toxicity</b>       | LD <sub>50</sub> rat (oral)                             | 735 mg/kg               | Data for sodium dichloroisocyanurate          |
|                             | LD <sub>50</sub> rat (oral)                             | > 5500 mg/kg            | Data for adipic acid                          |
|                             | LD <sub>50</sub> rabbit (derm)                          | > 2000 mg/kg            | Data for sodium dichloroisocyanurate          |
|                             | LD <sub>50</sub> rabbit (derm)                          | 7940 mg/kg              | Data for adipic acid                          |
|                             | LC <sub>50</sub> rat (inhal)                            | > 150 mg/m <sup>3</sup> | Data for sodium dichloroisocyanurate (1 hour) |
| <b>Dermal compatibility</b> | Strongly irritant. Data for sodium dichloroisocyanurate |                         |   |

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## 11. TOXICOLOGICAL INFORMATION

|                                      |   |
|--------------------------------------|---|
| <b>Mucous membrane compatibility</b> | Strongly irritant to eyes Data for sodium dichloroisocyanurate        |
| <b>Further information</b>           | None sensitising (guinea pig - data for sodium dichloroisocyanurate). |



## 12. ECOLOGICAL INFORMATION

|                                       |   |                      |                                   |
|---------------------------------------|---|----------------------|-----------------------------------|
| <b>12.1 Toxicity</b>                  | LC <sub>50</sub> Fish (Rainbow trout)   | 0.22 mg/l            | 96 hr sodium dichloroisocyanurate |
|                                       | LC <sub>50</sub> Fish (Bluegill sunfish)  | 0.28 mg/l            | 96 hr sodium dichloroisocyanurate |
|                                       | LC <sub>50</sub> Daphnia magna  | 0.20 mg/l            | 48 hr sodium dichloroisocyanurate |
|                                       | LC <sub>50</sub> Daphnia magna  | 46 mg/l              | 48 hrs Data for adipic acid       |
| <b>12.2 Degradability</b>             | Not determined  |                      |                                   |
| <b>12.3 Bioaccumulative potential</b> | LogBCF: 3.162   | Data for adipic acid |                                   |
| <b>12.4 Mobility in soil</b>          | 60% degradation 1-6 days (Data for adipic acid)   |                      |                                   |
| <b>12.5 PBT/vPvB assessment</b>       | Not applicable  |                      |                                   |
| <b>12.6 Other adverse effects</b>     | Do not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once. |                      |                                   |

## 13. DISPOSAL CONSIDERATIONS

|                                      |   |
|--------------------------------------|---|
| <b>13.1 Waste treatment measures</b> |   |
| <b>Advice on disposal</b>            | If possible, recycle to supplier or approved recycling company. If not (e.g. designated as waste), dispose of in accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005. |
| <b>Contaminated packaging</b>        | Treat empty containers in the same way as the product: if possible wash out thoroughly and recycle.   |

## 14. TRANSPORT INFORMATION

|   |   |   |
|---|---|---|
| <b>14.1 United Nations number (ADR, IMDG, IATA)</b> | UN 3077   |   |
| <b>14.2 Proper shipping name (ADR, IMDG, IATA)</b>  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICHLOROISOCYANURIC ACID SALTS) |  |
| <b>14.3 Transport class(s) (ADR, IMDG, IATA)</b>    | 9   |   |
| <b>14.4 Packing group (ADR, IMDG, IATA)</b>         | III   |   |
| <b>14.5 Environmental hazards (ADR, IMDG, IATA)</b> | The product should be marked as a marine pollutant.                                 |  |
| <b>14.6 Special procedures</b>                      | Not applicable  |   |
| <b>14.7 Transport in bulk</b>                       | Not applicable  |   |

## 15. REGULATORY INFORMATION

|                      |                             |                 |       |
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| <b>15.1 Safety, health and environmental regulations</b> | The product is classified in accordance with the Chemicals (Hazard Information and EC Regulation 1272/2008 (CLP). Other regulatory information and provisions are not applicable for this product. |
| <b>15.2 Chemical safety assessment</b>                   | Not applicable   |

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

**Further information**                      The SDS has been revised in accordance with EC Regulation 1272/2008 (CLP)

**Risk phrases and hazard statements referred to in sections 2/3**

- R8: Contact with combustible material may cause fire.
- R22: Harmful if swallowed.
- R31: Contact with acids liberates toxic gas
- R36: Irritating to eyes
- R36/37: Irritating to eyes and respiratory system
- R50: Very toxic to aquatic organisms
- R53: May cause long term adverse effects in the aquatic environment
  
- H272: May intensify fire; oxidiser
- 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

**Sources of data**                              Other suppliers' safety data sheets

**Date of issue**                                05-08-2014

**This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific properties.**