

Product Chlorine Tablets
 Revision date 14 July 2017
 Revision 1



Safety Data Sheet (SDS)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product name Chlorine Tablets
Synonyms, Trade names No information available.

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

Identified uses Chlorine tablets.
Uses advised against Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier Kitchenmaster NI Ltd
 11 Comber Road
 Belfast
 BT8 8AN
 United Kingdom
 Tel: 028 9081477 02890812881
 sales@kitchenmaster-ni.com

Contact person

1.4 Emergency telephone number

Emergency telephone Emergency Telephone Number: 028 9081 4777 08:30 - 17:00 Monday to Thursday 08:30 - 16:30 Friday

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)
 Physical and chemical hazards Ox Sol 2- H272
 Human health Acute Tox 4 - H302, Eye Irrit.2A - H319, STOT SE 3 - H335
 Environment Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410

2.2 Label elements

Contains troclosen sodium

Label in accordance with (EC) no.
 1272/2008



Signal word Warning

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

Prevention

P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
 P221 Take any precaution to avoid mixing with combustibles/flammable materials
 P280 Wear protective gloves/ protective clothing/eye protection/face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P370 + P378 In case of fire: Use water spray or CO2 for extinction.

EUH statements

EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients**3.1 Substance**

Not applicable.

3.2 Mixtures

| Name | Product identifier | Reg. EU 1272/2008 | % |
|-------------------|---|---|--------|
| troclosene sodium | CAS-No.: 2893-78-9 EC No.: 220-767-7 | Ox Sol 2- H272, Acute Tox 4 - H302, Eye Irrit.2A - H319, STOT SE 3 - H335, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410 | 30-60% |
| adipic acid | CAS-No.: 124-04-9 EC No.: 204-673-3 | Eye Irrit.2A - H319 | 30-60% |
| sodium carbonate | CAS-No.: 497-19-8 EC No.: 207-838-8 | Eye Irrit.2A - H319 | 1-10% |

The full text for all hazard statements are displayed in section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures**4.1 Description of first aid measures****General information**

As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue. Provide general first aid, rest, warmth and fresh air.

Inhalation

If inhaled, remove to fresh air. Keep person warm and at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and seek medical attention.

Ingestion

If this product is ingested, remove victim immediately from source of exposure. Rinse mouth thoroughly. Seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person. Do not induce vomiting.

Skin contact

Remove affected person from source of contamination Remove contaminated clothing. In case of skin contact flush exposed area with copious amounts of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye contact

Do not rub eye. Avoid contaminating unaffected eye. Rinse with a gentle stream water for at least 15 minutes. Hold eye lids open. Remove contact lenses if present and easy to do so. Get prompt medical attention.

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

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Inhalation of product dust may cause irritation to respiratory tract.

Ingestion

May cause digestive tract irritation, pain or vomiting. Harmful if swallowed.

Skin contact

May cause irritation, redness, and pain.

Eye contact

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed**Notes to the physician**

Treat symptomatically.

Section 5: Fire-fighting measures

5.1 Extinguishing media

| | |
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| Extinguishing media | Use fire-extinguishing media appropriate for surrounding materials. Water spray or CO ₂ . |
| Unsuitable extinguishing media | Do not use dry chemicals or foams. Do not use ABC extinguishers containing nitrogen, due to risk of violent chemical reaction. |

5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| Hazardous combustion products | During fire, toxic gases (CO, CO ₂) are formed. Oxygen. Chlorine. Nitrogen trihalide. Hydrogen chloride (HCl). Nitrogen oxides (NO _x). |
| Unusual fire & explosion hazards | Oxidising agent: Non-combustible but when involved in a fire it liberates oxygen which increases the rate of burning of the combustible materials involved and can cause an explosion. Dust clouds may be explosive. |
| Specific hazards | Decomposition is accelerated by heat and is accompanied by evolution of oxygen, which may enhance the combustion of other flammable materials. Containers can burst violently when heated, due to excess pressure build-up. |

5.3 Advice for firefighters

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| Special fire fighting procedures | Ventilate closed spaces before entering them. Keep up-wind to avoid fumes. Avoid breathing fire vapours. If possible, fight fire from protected position. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Protective equipment for firefighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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| Personal precautions | Eliminate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet. In case of inadequate ventilation, use respiratory protection. Avoid inhalation of dust or vapours and contact with skin and eyes. Read and follow manufacturer's recommendations. Do not touch or walk through spilled material. Avoid raising powdered materials into airborne dust. |
| For emergency responders | Follow safe handling advice and personal protective equipment recommendations for normal use of product. |

6.2 Environmental precautions

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|----------------------------------|-----------------------------------|
| Environmental precautions | Avoid release to the environment. |
|----------------------------------|-----------------------------------|

6.3 Methods and material for containment and cleaning up

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| Spill clean up methods | Prevent further leakage or spillage if safe to do so. Ventilate and evacuate the area. Eliminate all ignition sources. Wear necessary protective equipment. Wear respirator if ventilation is not adequate. Sweep/shovel up residues. Take care not to raise dust. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. |
|-------------------------------|--|

6.4 Reference to other sections

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|------------------------------------|--|
| Reference to other sections | For waste disposal, see section 13. See section 1 for emergency contact. For personal protection, see section 8. |
|------------------------------------|--|

Section 7: Handling and storage

7.1 Precautions for safe handling

| | |
|-----------------|--|
| Handling | Avoid inhalation of dust and contact with skin and eyes. Use personal protective equipment, see Section 8. Ensure good dust ventilation during handling. Wear appropriate respirator when ventilation is inadequate. Keep away from heat, sparks and open flame. Keep away from flammable materials and |
|-----------------|--|

incompatible substances. Avoid generation of dust clouds/accumulation of dust in work area. Never return spilled product into its original container for re-use. (Risk of decomposition).

7.2 Conditions for safe storage, including any incompatibilities

| | |
|----------------------------|---|
| Storage precautions | Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Oxidising material - Keep away from flammable and combustible materials. Store separate from alkalis. Store in locked, well ventilated room and isolated from acids. Store at 5-35°C. |
| Storage class | Oxidiser storage |

7.3 Specific end use(s)

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|----------------------------|--|
| Specific end use(s) | The identified uses are in section 1 of this Safety Data Sheet. |
| Usage description | Use only according to directions. Replace and tighten cap after use. |

Section 8: Exposure controls/Personal protection

8.1 Control parameters

| Component | STD | TWA (8 Hrs) | STEL (15mins) | Notes |
|-------------|-----|---------------------|---------------|-------|
| adipic acid | OEL | 5 mg/m ³ | | |

Ingredient comments Ireland, Occupational Exposure Limits 2016.

8.2 Exposure Controls

Protective equipment



| | |
|------------------------------|---|
| Engineering measures | Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. |
| Respiratory equipment | If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/145/143/149. The specific respirator selected must be based on contamination levels found in the work place. Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN143 should be used, and suitable respirator cartridges as a backup to engineering controls. Filter P2 (acc. to DIN 3181) for solid and liquid particles of harmful substances. Consult manufacturer for specific advice. |
| Hand protection | Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. (EU Directive 89/686/EEC). Gloves must be inspected prior to use. Suggested material: Butyl-rubber. Layer thickness: 0.11 mm. Breakthrough time: >480 minutes. Consult manufacturer for advice. Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. |
| Eye protection | Wear safety goggles or face shield to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU). |
| Other protection | Wear appropriate clothing to prevent skin contact. The selected clothing must satisfy the European norm standard EN 943. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Hygiene measures | Observe normal hygiene standards. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after use. |
| Process conditions | Ensure that eye flushing systems and safety showers are located close by in the work place. |

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|------------------------------|
| Appearance | Solid. Tablet. |
| Colour | White. |
| Odour | Chlorine. |
| Odour threshold - lower | No information available. |
| Odour threshold - upper | No information available. |
| pH-Value, Conc. Solution | 5.90 |
| pH-Value, Diluted solution | No information available. |
| Melting point | No information available. |
| Initial boiling point and boiling range | No information available. |
| Flash point | No information available. |
| Evaporation rate | No information available. |
| Flammability state | No information available. |
| Flammability limit - lower(%) | No information available. |
| Flammability limit - upper(%) | No information available. |
| Vapour pressure | No information available. |
| Vapour density (air=1) | No information available. |
| Relative density | No information available. |
| Bulk density | No information available. |
| Solubility | Soluble in water. |
| Decomposition temperature | No information available. |
| Partition coefficient; n-Octanol/Water | No information available. |
| Auto ignition temperature (°C) | No information available. |
| Viscosity | No information available. |
| Explosive properties | Not classified as explosive. |
| Oxidising properties | No information available. |

9.2 Other information

| | |
|----------------------------------|---------------------------|
| Molecular weight | No information available. |
| Volatile organic compound | No information available. |
| Other information | None noted. |

Section 10: Stability and reactivity

10.1 Reactivity

| | |
|-------------------|---|
| Reactivity | Contact with flammables may cause fire or explosions. Risk of explosion if heated under confinement. Hypochlorous acid occurs when product is dissolved in water. Dust clouds may be explosive. |
|-------------------|---|

10.2 Chemical stability

Stability Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous reactions Dust clouds may be explosive. Oxidising: Oxygen released in thermal decomposition may support combustion. Contact with combustible material may cause fire.
Contact with flammables may cause fire or explosions. Risk of explosion if heated under confinement. A risk of explosion and / or of toxic gas formation exists with the following substances: Ammonia, urea, ammonium compounds, bases, acids.

Hazardous polymerisation No information available.

Polymerisation description Unknown.

10.4 Conditions to Avoid

Conditions to avoid Heat, sparks, open flames, temperature extremes and direct sunlight.

10.5 Incompatible materials

Materials to avoid Avoid contact with: Incompatible with: Acid, alkali, other chlorine agents, oils/fats and flammable materials. Ammonia. Urea. Ammonium compounds.
Do not mix with other chemicals unless listed on directions.

10.6 Hazardous decomposition products

Hazardous decomposition products When heated, vapours/gases hazardous to health may be formed. Decomposition is accelerated by heat and results in the evolution of oxygen which may enhance the combustion of other flammable materials.
Thermal decomposition or combustion may liberate carbon oxides and nitrogen oxides. Oxygen. Chlorine. Nitrogen trihydride. Hydrogen chloride (HCl).

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

Toxicological information No toxicological information for the overall finished product.

Acute toxicity (Oral LD50) TROCLOSENE SODIUM (CAS 2893-78-9): 1823 mg/kg, Rat. REACH dossier information.
SODIUM CARBONATE (CAS 497-19-8): 2800 mg/kg, Rat. REACH dossier information.

Acute toxicity (Dermal LD50) TROCLOSENE SODIUM (CAS 2893-78-9): > 5000 mg/kg, Rat. REACH dossier information.
SODIUM CARBONATE (CAS 497-19-8): > 2000 mg/kg, Rabbit. REACH dossier information.

Acute toxicity (Inhalation LD50) TROCLOSENE SODIUM (CAS 2893-78-9): > 0.27 mg/l, (dust/mist), Rat - 4 hours. REACH dossier information. SODIUM CARBONATE (CAS 497-19-8): 2300 mg/m³, (aerosol), Rat - 2 hours. REACH dossier information.

Serious eye damage/irritation Causes serious eye irritation.

Skin corrosion/irritation No information available.

Respiratory sensitisation No information available.

Skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Specific target organ toxicity - Single exposure:
STOT - Single exposure No information available.

Specific target organ toxicity - Repeated exposure:
STOT - Repeated exposure No information available.

Inhalation Inhalation of product dust may cause irritation to respiratory tract.

Ingestion May cause digestive tract irritation, pain or vomiting. Harmful if swallowed.

Skin contact May cause irritation, redness, and pain.

Eye contact Causes serious eye irritation.

Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

| | |
|-------------------------------|---|
| Routes of entry | No information available. |
| Target organs | Eyes, skin, digestive system, respiratory system. |
| Aspiration hazards: | No information available. |
| Reproductive toxicity: | No information available. |

Section 12: Ecological information

12.1 Toxicity

| | |
|---|---|
| Acute toxicity - Fish | SODIUM CARBONATE (CAS 497-19-8) LC50: (96 hours), 300 mg/l, <i>Lepomis macrochirus</i> (Bluegill.) REACH dossier information. TROCLOSENE SODIUM (CAS 2893-78-9) LC50: (96 hours) > 1000 mg/l, <i>Lepomis macrochirus</i> , (Bluegill.) REACH dossier information. |
| Acute toxicity - Aquatic invertebrates | SODIUM CARBONATE (CAS 497-19-8) EC50: (48 hours), 200 mg/l, <i>Ceriodaphnia</i> sp. REACH dossier information. TROCLOSENE SODIUM (CAS 2893-78-9) LC50: (48 hours), > 1000 mg/l, <i>Daphnia magna</i> . REACH dossier information. |
| Acute toxicity - Aquatic plants | TROCLOSENE SODIUM (CAS 2893-78-9) EC50: (72 hours) > 100 mg/l, <i>Skeletonema costatum</i> . NOEC: (72 hours), 100 mg/l, <i>Skeletonema costatum</i> . REACH dossier information. |
| Acute toxicity - Microorganisms | No information available. |
| Chronic toxicity - Fish | No information available. |
| Chronic toxicity - Aquatic invertebrates | No information available. |
| Chronic toxicity - Aquatic plants | No information available. |
| Chronic toxicity - Microorganisms | No information available. |
| Ecotoxicity | Very toxic to aquatic life with long lasting effects. |
| Eco toxicological information | No ecological toxicity available on the overall finished product. |

12.2 Persistence and degradability

| | |
|---------------------------------|---|
| Degradability | The degradability of the product has not been stated. |
| Biological oxygen demand | No information available. |
| Chemical oxygen demand | No information available. |

12.3 Bioaccumulative potential

| | |
|---|---------------------------------------|
| Bioaccumulative potential | No data available on bioaccumulation. |
| Bioaccumulation factor | No information available. |
| Partition coefficient; n-Octanol/Water | No information available. |

12.4 Mobility in soil

| | |
|-----------------|-------------------|
| Mobility | Soluble in water. |
|-----------------|-------------------|

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment None of the raw materials listed are classified as PBT / vPvB substances.

12.6 Other adverse effects

| | |
|------------------------------|-------------|
| Other adverse effects | None known. |
|------------------------------|-------------|

Section 13: Disposal considerations

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|-------------------------|--|
| Waste management | When handling waste, consideration should be made to the safety precautions applying to handling of the product. |
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13.1 Waste treatment methods

| | |
|-------------------------|--|
| Disposal methods | Dispose of waste and residues in accordance with local authority requirements, and in accordance with all local, national and international regulations. For waste disposal, use a licensed industrial waste disposal agent. |
|-------------------------|--|

Section 14: Transport information**14.1 UN number**

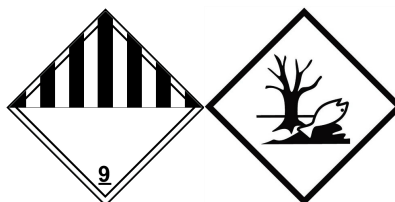
| | |
|---------------|--------|
| UN no. (ADR) | UN3077 |
| UN no. (IMDG) | UN3077 |
| UN no. (IATA) | UN3077 |

14.2 UN proper shipping name

| | |
|---------------------------|--|
| ADR proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium) |
| IMDG proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium) |
| IATA proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID N.O.S. (troclosene sodium) |

14.3 Transport hazard class(es)

| | |
|------------|---|
| ADR class | 9 |
| IMDG class | 9 |
| IATA class | 9 |

Transport labels**14.4 Packing group**

| | |
|---------------------------|-----|
| ADR/RID/ADN packing group | III |
| IMDG packing group | III |
| IATA packing group | III |

14.5 Environmental hazards

| | |
|------|----|
| ADR | No |
| IMDG | No |
| IATA | No |

14.6 Special precautions for user

| | |
|-------------------------|----------|
| EMS | F-A, S-F |
| Emergency action code | A97 |
| Hazard no. (ADR) | 90 |
| Tunnel restriction code | (E) |

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information**15.1 Safety, health and environmental regulations/Legislation specific for the substance or mixture**

| | |
|-----------------------------------|--|
| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006. |
| Approved code of practice | 2016 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005). Workplace Exposure Limits Guidance Note EH40/2005. |
| Chemical safety assessment | No chemical safety assessment has been carried out. |

Section 16: Other information

| | |
|----------------------------|---|
| General information | This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010. |
|----------------------------|---|

| | |
|---------------------------------|------------------------|
| Revision comments | This is a first issue. |
| Revision date | 14 July 2017 |
| Revision | 1 |
| Safety data sheet status | Approved. |

Hazard statements in full

| | |
|---------------|---|
| 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. |
| EUH031 | Contact with acids liberates toxic gas. |

Disclaimer

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 the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.