SAFETY DATA SHEET
TROCLOENE SODIUM, DIHYDRATE

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

1.1. Product identifier
Product name: TROCLOENE SODIUM, DIHYDRATE
Product number: 976
Synonyms; trade names: BRISWIM PLUS CHLORINE GRANULES, BRICHLOR PLUS GRANULES, DCCNa 55 GRAIN, FI-CLOR GRANULES, CHLORINE GRANULES, CLEARON PLUS, ACLOR 56, BRISWIM CHLOR GR., SODIUM DICHLOROISOCYANURATE DIHYDRATE
REACH registration number: 01-2119489371-33
CAS number: 51580-86-0
EU index number: 613-030-01-7
EC number: 220-767-7

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Biocides for water treatment.

1.3. Details of the supplier of the safety data sheet
Supplier: Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
sds@univar.com

1.4. Emergency telephone number
Emergency Contact Number (Office Hours): +44 1274 267346
Emergency Contact Number (Outside Office Hours): +44 1865 407333
Sds No.: 976

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification
Physical hazards: Not Classified
Health hazards: Acute Tox. 4 - H302 Eye Irrit. 2 - H319 STOT SE 3 - H335
Environmental hazards: Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC)
Xn;R22 Xi;R36/37 R31 N;R50/53

Human health

1/8
TROCLOSENE SODIUM, DIHYDRATE

Harmful if swallowed. Irritating to eyes and skin.

Environmental
The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

EC number 220-767-7

Pictogram
![Pictogram]

Signal word Warning

Hazard statements
H335 May cause respiratory irritation.
H319 Causes serious eye irritation.
H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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/doctor if you feel unwell.

Supplemental label information
EUH031 Contact with acids liberates toxic gas.

2.3. Other hazards
This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name TROCLOSENE SODIUM, DIHYDRATE
REACH registration number 01-2119489371-33
EU index number 613-030-01-7
CAS number 51580-86-0
EC number 220-767-7

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

Inhalation
Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion
Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Keep affected person under observation. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

**Inhalation**
Upper respiratory irritation.

**Ingestion**
May cause stomach pain or vomiting.

**Skin contact**
Prolonged skin contact may cause redness and irritation.

**Eye contact**
Irritation of eyes and mucous membranes.

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

**Notes for the doctor**
No specific recommendations. If in doubt, get medical attention promptly.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards
Chlorine.

5.3. Advice for firefighters

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions
Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**
Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Wash thoroughly after dealing with a spillage. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

**Reference to other sections**
For personal protection, see Section 8.

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

**Usage precautions**
Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved
TROCLOSENE SODIUM, DIHYDRATE

respirator if air contamination is above an acceptable level.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions
Keep container tightly closed. Keep only in the original container.

Storage class
Chemical storage.

7.3. Specific end use(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits
Long-term exposure limit (8-hour TWA): MEL 0.02 mg/m3
Short-term exposure limit (15-minute): MEL 0.07 mg/m3

Ingredient comments
SUP = Supplier's recommendation.

8.2. Exposure controls

Protective equipment

Eye/face protection
Wear chemical splash goggles. EN 166

Hand protection
It is recommended that gloves are made of the following material: Neoprene. EN 374

Other skin and body protection
Wear rubber apron. Wear rubber footwear.

Respiratory protection
Wear a respirator fitted with the following cartridge: Organic vapour filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Granules. or Pellets.

Colour
White/off-white.

Odour
Chlorine.

pH
pH (diluted solution): 6.0 - 6.4 @ 1%

Melting point
240 - 250°C

Flash point
>250°C

Relative density
TROCLOSENE SODIUM, DIHYDRATE

0.974 @ °C

**Bulk density**
900 - 1000 kg/m³

**Solubility(ies)**
25 @ °C Soluble in water.

### 9.2. Other information

Other information
Not determined.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

#### 10.2. Chemical stability

Stability
Will decompose at temperatures exceeding 200°C.

#### 10.3. Possibility of hazardous reactions

Not determined.

#### 10.4. Conditions to avoid

Avoid contact with strong reducing agents. Generates very toxic gas in contact with acid. Protect from humidity

#### 10.5. Incompatible materials

Materials to avoid
Strong acids. Strong reducing agents.

#### 10.6. Hazardous decomposition products

Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity - oral**

Acute toxicity oral (LD50 mg/kg)
1,823.0

Species
Rat

ATE oral (mg/kg)
1,823.0

**Acute toxicity - dermal**

Acute toxicity dermal (LD50 mg/kg)
5000

Species
dermal
Rat

**Acute toxicity - inhalation**

Acute toxicity inhalation (LC50 dust/mist mg/l)
0.27

Species
Rat

ATE inhalation (dusts/mists mg/l)
0.27
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Inhalation
Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion
Harmful if swallowed.

Skin contact
Product has a defatting effect on skin. May cause allergic contact eczema. Irritating to skin.

Eye contact
Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

SECTION 12: Ecological Information

Ecotoxicity
The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity
Very toxic to aquatic organisms.

Acute aquatic toxicity

LE(C)$_{50}$

0.1 < L(E)C50 ≤ 1

M factor (Acute)

1

Acute toxicity - fish

LC$_{50}$, 96 hours: 0.22 mg/l, Fish

Acute toxicity - aquatic invertebrates

EC$_{50}$, 48 hours: 0.55 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic)

1

12.2. Persistence and degradability

Persistence and degradability
The product is not readily biodegradable.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility
The product is soluble in water.

12.5. Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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Disposal methods
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General
Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number
UN No. (ADR/RID) 3077
UN No. (IMDG) 3077
UN No. (ICAO) 3077

14.2. UN proper shipping name
Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TROCLOSENE SODIUM, DIHYDRATE)
Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TROCLOSENE SODIUM, DIHYDRATE)
Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TROCLOSENE SODIUM, DIHYDRATE)
Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TROCLOSENE SODIUM, DIHYDRATE)

14.3. Transport hazard class(es)
ADR/RID class 9
ADR/RID subsidiary risk
ADR/RID label 9
IMDG class 9
IMDG subsidiary risk
ICAO class/division 9
ICAO subsidiary risk

Transport labels

14.4. Packing group
ADR/RID packing group III
IMDG packing group III
ICAO packing group III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

Yes.

14.6. Special precautions for user
EmS F-A, S-F
Emergency Action Code 2Z
TROCLOSENE SODIUM, DIHYDRATE

Hazard Identification Number
(ADR/RID)  90

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: Regulatory information

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

National regulations

EU legislation

Guidance

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other Information

Revision comments
NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date  10/06/2013
Revision  04
SDS number  20140
SDS status  Approved.
Signature  Jitendra Panchal

Risk phrases in full
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R36/37 Irritating to eyes and respiratory system.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard statements in full
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.