



**Company Details:**

**Waterwell Projects (PTY) LTD**

*Reg No. 2001/018862/07*

Waterwell Projects (PTY) LTD

Unit 4 Megazone Park

Hertford Junction R512

Lanseria

1748

Tel: 011 300 9917/8 or 073 077 0973

Fax: 086 605 9360

Poison Centre: **+27 21 689 5227**

## **MATERIAL SAFETY DATA SHEET**

### **1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY**

#### **a) Identification of the substance or preparation :**

1.1 Commercial name : **Waterwell Black Out (packed 1L, 1.5L,20L)**  
1.2 Chemical name : **(Active) N,N-Didecyl – N,N-dimethylammonium**

chloride

1.3. Chemical formula :

1.4. CAS No :

7173-51-5

1.5. EEC No :

#### **b) Information of Distributor :**

Waterwell Projects (PTY) LTD

Unit 4 Megazone Park

Hertford Junction R512

Lanseria 1748

Tel: 011 300 9917/8 or 073 077 0973

Fax: 086 605 9360

#### **Alternate suppliers:**

Hexachem (Pty) Ltd

**or:**

P. O. Box 1442

Kloof 3640

Unit E31, Kyalami Industrial Park,

26 Kyalami Road, Westmead, 3610

Tel: 031-7929860

Fax: 031 -700 3086

### **2. MATERIAL IDENTIFICATION ;**

CAS No : See Section 2 – CHEMICAL OR HAZARDOUS COMPONENTS

Molecular formula : Mixture

Chemical name : (Active) N,N-Didecyl – N,N-dimethylammonium chloride

### **3. CHEMICAL OR HAZARDOUS COMPONENTS ;**

| <b><u>Chemical name</u></b>                | <b><u>CAS No.</u></b> | <b><u>Approx Wt%</u></b> | <b><u>Exposure limit</u></b> |
|--|-----------------------|--------------------------|------------------------------|
| N,N-Didecyl-N,N-dimethyl-ammonium chloride | 7173-51-5             | 30 %                     | None established             |
| Water                                      | 7732-18-5             | 70 %                     | None established             |

#### 4. POTENTIAL HEALTH EFFECTS

##### Primary routes of entry :

Skin contact : (x)                      Eye contact : (x)

Inhalation : (X)                        Ingestion : ( )

##### Effects of overexposure :

Based on animal test data for this material, the following effect(s) can be anticipated : Direct skin or eye contact may produce severe irritation and/or burns and possible irreversible damage. Ingestion can cause immediate burning pain in the mouth, throat and abdomen; severe swelling of the larynx. Ingestion can cause skeletal muscle paralysis affecting the ability to breathe; circulatory shock; and/or convulsions. May be fatal if ingested. Solvent vapours or mists of product may cause irritation of mucous membranes. Prolonged inhalation may produce drowsiness, lassitude, and inability to concentrate.

Over exposure may aggravate existing conditions :

No effects indicated.

Material listed as carcinogen

National Toxicology Programme : No

I.A.R.C. Monographs                : No

O.S.H.A.                                 : No

#### 5. FIRST AID MEASURES

##### First aid :

##### Skin contact :

For skin contact, wash with plenty of running water, and soap if available, for 15 minutes.

Remove and clean contaminated clothing and shoes. Get immediate medical attention.

Wash clothing and decontaminate shoes before reuse.

##### Eye contact :

For eye contact, immediately flush eyes with running water for at least 15 minutes. Hold

eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. If

physician is not available, flush for an additional 15 minutes. Get immediate medical attention.

##### Inhalation :

If inhaled, remove from area to fresh air. Get immediate medical attention. If not breathing, clear airway and start artificial respiration. If victim is having trouble breathing, give supplemental oxygen, if available.

##### Ingestion :

Get immediate medical attention. If swallowed, give 3-4 glasses of milk (if unavailable, water).

DO **NOT** induce vomiting. If vomiting does occur, give fluids again. Get medical attention to determine if vomiting or evacuation of stomach is necessary. Do not give anything by mouth to an unconscious or convulsing person.

##### Medical treatment :

Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, oxygen, and measures to support breathing manually or mechanically may be needed,

If persistent, convulsions may be controlled by the cautious intravenous injection of a short acting barbiturate drug.

## 6. FIRE AND EXPLOSION INFORMATION

|                             |                                 |
|-----------------------------|---------------------------------|
| Flash point :               | 107 ° F Setaflash Closed Tester |
| Decomposition temperature : | Not known                       |
| Self ignition :             | Not known                       |
| Lower explosion limit :     | Not known                       |
| Upper explosion limit :     | Not known                       |

Extinguishing media

|              |   |
|--------------|---|
| To be used : | Carbon dioxide<br>Dry chemical<br>Alcohol foam<br>Water |
|--------------|---|

### **Special fire fighting procedures :**

Must wear NIOSH / MSHA approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

### **Unusual fire and explosion hazards:**

Products of combustion are toxic. Heated solvent vapours can travel to an ignition source and flash back.

## 7. ACCIDENTAL RELEASE MEASURES

### **Measures after spillage / leakage / release**

Remove all sources of ignition and ground all equipment before beginning cleanup. Floors may become slippery. Wear appropriate protective gear and NIOSH / MSHA approved respirator where mists or vapours of unknown concentrations may be generated (self-contained breathing apparatus preferred). Dike and control spill with inert material (sand, earth, etc.). Transfer the solid and liquid to separate containers for recovery or disposal. Keep spill out of sewers and open bodies of water.

## 8. HANDLING AND STORAGE

### **Precautions for storage and handling :**

Maximum storage temperature : 140 °F. Store containers in compliance with the most recent NFPA Code (NFPA 30). Ground all containers prior to pouring. Keep containers closed until used. Do not contaminate drinking water, food or feed by storage or disposal.

## 9. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation:**

If mists or vapours may be generated, proper ventilation must be provided in accordance with good ventilation practices.

**Respiratory protection:**

In processes where mists or vapours are generated, a NIOSH / MSHA approved respirator is advised in the absence of proper environmental controls or if TWA / TLV is exceeded.

**Protective gloves:**

Use rubber or neoprene gloves, when needed, to prevent skin contact.

**Eye Protection:**

Wear chemical splash goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

**Other protective equipment:**

Eye wash; safety shower; protective clothing (long sleeves, coveralls or other), when needed, to prevent skin contact.

## 10. PHYSICAL AND CHEMICAL PROPERTIES

|          |                           |
|----------|---------------------------|
| Form :   | Liquid                    |
| Colour : | Colourless to pale yellow |
| Odour :  | Ethanol-like              |

Changes of physical state :

|                 |           |
|-----------------|-----------|
| Melting point : | 10 °C     |
| Boiling point : | Not known |

|   |                                   |
|---|-----------------------------------|
| Density :                               | 0.89 g / cm <sup>3</sup> at 25 °C |
| Bulk density :                          | Not applicable                    |
| Vapour pressure :                       | Not known                         |
| Relative vapour density (air = 1) :     | Not known                         |
| Max. percent volatile :                 | 20%                               |
| Evaporation rate (Butyl acetates = 1) : | Not known                         |
| Viscosity                               | < 100 cps at 25 °C                |
| Water solubility :                      | Soluble                           |
| PH – value :                            | 6.5 – 9 at 10%                    |

## 11. STABILITY AND REACTIVITY

**Stability:**

Stable (x)    unstable ( )

Conditions to avoid :                      None known

**Hazardous decomposition products:**

Toxic organic vapours / fumes  
Hydrogen chloride  
Toxic vapours / fumes of amines

Oxides of carbon  
Oxides of nitrogen

**Dangerous polymerisation :** No  
Conditions to avoid: None known

**Dangerous incompatibility with water:** No

**(Dangerous) Reactions / Incompatibility with:**  
Strong oxidising agents  
Strong reducing agents

## 12. TOXICOLOGY INFORMATION

**Acute oral toxicity (LD50) :**  
rat ; 450 mg / kg  
(80% active)

**Acute oral toxicity (LD50) :**  
rat (male) : 412 mg / kg  
(50% active)

**Acute oral toxicity (LD50) :**  
rat (female ; 292 mg / kg

**Acute dermal toxicity (LD50) :**  
rabbit ; 3342 mg / kg  
4300 mg / kg (two tests) (80% active)

**Skin irritation :**  
rabbit : severe irritant  
extreme irritation that did not clear by day 7, post dose (primary irritation index = 110).

**Sensitisation :**  
guinea pig ; not sensitising  
For a 0.2% active solution.

**Mutagenicity :**  
Salmonella : not mutagenic  
with or without metabolic activation (50% active).

not mutagenic  
For Didecyldimethylammonium chloride : (Ames, CHO / HGPRT, CHO, DNA Syntheses).

rat :  
No evidence of chromosomal damage in the bone marrow of rats treated with 600 mg / kg  
950% active).

**Reproductive toxicity :**

rat : not teratogenic  
Treatment with 10 to 50 mg / kg on days 6 to 15 gestation (50% active)

not teratogenic  
For Didecyldimethylammonium chloride : (rat and rabbit) treatment at or below mild toxic effect levels.

rat :  
For Didecyldimethylammonium chloride : no reproductive effect for treatment at or below mild toxic effects level.

Not clastogenic in Chinese hamster ovary cells with or without metabolic activation (50% active).

**Subchronic toxicity :**

Dermal

rat :

Test period : 90 days

For Didecyldimethylammonium chloride : no systemic toxicity :

**Chronic toxicity :**

Oral dog :

Test period : 1 year

For Didecyldimethylammonium chloride : no target organ effects.

LC 50 oral :

Bobwhite quail : < 5620 ppm  
(and mallard duck) ; oral dietary

Pharmacokinetic :

dog :

For Didecyldimethylammonium chloride : this material does not accumulate in body tissues.

**13. ECOTOXICOLOGY AND ECOLOGY INFORMATION**

**Fish toxicity (LC50) :**

bluegill sunfish :

Test period ; 96 hours

For Didecyldimethylammonium chloride : 0.32 mg / l

**Fish toxicity (LC50) :**

Test period : 96 hours

For Didecyldimethylammonium chloride : (salmon) 1.0 mg / l

**Toxicity for Daphnia (EC50)**

daphnia magna :

Test period : 48 hours

For Didecyldimethylammonium chloride : 0.94 mg / l

**Dietary Toxicity Test :**

LC 50 oral : > 5620 ppm  
For Didecyldimethylammonium chloride : (bobwhite quail and mallard duck).

**Acute toxicity :**

LD 50 oral :  
Bobwhite quail : 229 mg / kg  
For Didecyldimethylammonium chloride :

**14. DISPOSAL CONSIDERATIONS**

**Disposal**

**Product :**

Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method.

**Packaging :**

CONTAINER DISPOSAL ; Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**15. TRANSPORTATION**

DOT hazard class : 8, PG II  
Bulk only : No  
Proper Shipping Name : Corrosive Liquid, Flammable N.O.S.  
UN / NA No. : UN2920  
DOT label(s) : CORROSIVE No.8  
Flammable Liquid  
Further Information : None

**16. REGULATORY INFORMATION**

**Directions for use :**

FOR MANUFACTURING, PROCESSING, OR REPACKAGING

**FEDERAL LEVEL REGULATIONS**

**Toxic Substances Control Act (TSCA) Inventory**

This product is currently listed on the EPA TSCA 8 (b) inventory list.

**US EPA Regulation on Pesticides ;**

This product is not an EPA registered pesticide. It cannot be used in the United States as a commercial antimicrobial agents without first obtaining an EPA FIFRA registration. It can be used commercially in non-antimicrobial applications, and for all research and development (R&D) applications including as a potential antimicrobial agent.

**CERCLA**

(Comprehensive Environmental Response, Compensation, and Liability Act of 1980). Requires notification of the National Response Centre (1-800-424-8802) of release of quantities of Hazardous Substances equal to or greater than the Reportable Quantities (RQs) in 40 CFR 302.4. The following components could require reporting :

\*\*\*None\*\*\*

SARA Title III ; Sections 302 / 304

(Superfund Amendments and Reauthorization Act of 1986). Requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355. Components present in this product at a level which could require reporting under that statute are :

\*\*\*None\*\*\*

SARA Title III : Sections 311 / 312

(Superfund Amendments and Reauthorization Act of 1986). Requires reporting under the Community Right-to-know provisions due t their inclusion in one of the five hazard categories listed in 40 CFR 370. Components present in this product which could require reporting under the statute are :

IMMEDIATE (ACUTE) HEALTH HAZARD :

| <u>Chemical Name</u>                      | <u>CAS No</u> | <u>Concentration (max/typ)</u> |
|---|---------------|--------------------------------|
| N,N-Didecyl-N,N-Dimethylammonium Chloride | 7173-51-5     | 80%                            |

DELAYED (CHRONIC) HEALTH HAZARD :

\*\*\*None\*\*\*

FIRE HAZARD

| <u>Chemical Name</u> | <u>CAS No</u> | <u>Concentration (max/typ)</u> |
|----------------------|---------------|--------------------------------|
| Ethyl alcohol        | 64-17-5       | 10%                            |

REACTIVITY HAZARD :

\*\*\*None\*\*\*

SARA Title III : Section 313

(Superfund Amendments and Reauthorization Act of 1986). Requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are :

\*\*\*None\*\*\*

TSCA Section 12 (b) Export Notification

Components present in this product which, if exported, could require either annual or one-time reporting under this regulation are as follows :

\*\*\*None\*\*\*

## 17. FURTHER INFORMATION

No further information available.

*The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.*

Date of Revision: **21 August 2014 (general revision)**