

Material Safety Data Sheet

ICA International Chemicals (Pty)Ltd.

Telephone & Fax

28 Planken Street
Plankenbrug Industrial
Stellenbosch
7600

+27-(0)21-8869812 (Tel)
+27-(0)21-8868209 (Fax)

South Africa

Pages 1 of 4

1) Date issued: 14/05/2002

2) Material Identification:

Product name: QA-Kill

CAS number: See section 3

Chemical name: (active) N,N- Didecyl-N,N-dimethylammonium Chloride

3) Hazardous component:

Chemical name: N,N- Didecyl-N,N-dimethylammonium Chloride

CAS no: 7173-51-5

Approx. Wt%: 15 %

Exposure Limit: None established

4) Potential Health Effects:

Primary route of entry:

Skin contact: (X) Eye contact: (X) Inhalation: () Ingestion: ()

Effects of overexposure:

Based on animal test data for this material adjusted for the percentage active concentration, the following effects can be anticipated: Direct skin contact may produce slight irritation. Direct eye contact may produce severe irritation. Ingestion may cause immediate burning pain in the mouth, throat and abdomen, and swelling of the larynx.

Overexposure that may aggravate existing conditions:

No effects indicated.

Material listed as carcinogen:

National Toxicology Program: No

I.A.R.C Monographs: No

O.S.H.A: No

5) First Aid Measure:

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.

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 irritation persists, get medical attention.

Ingestion:

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.

Medical treatment:

Possible mucosal damage may contraindicate the use of gastric lavage.

Material Safety Data Sheet

ICA International Chemicals (Pty)Ltd.

Telephone & Fax

28 Planken Street
Plankenbrug Industrial
Stellenbosch
7600

+27-(0)21-8869812 (Tel)
+27-(0)21-8868209 (Fax)

South Africa

Pages 2 of 4

6) Fire and Explosion information:

<u>Flash point:</u>	64C
<u>Decomposition temperature:</u>	Not known
<u>Self ignition:</u>	Not know
<u>Lower explosion limit:</u>	Not know
<u>Upper explosion limit:</u>	Not know
<u>Extinguishing media:</u>	Carbon dioxide, Dry Chemical, Alcohol foam, Water.
<u>Special fire fighting procedures:</u>	None

7) Accidental release measures:

Measures after spillage/leakage/release:

Dike and contain spill with inert material (sand, earth, etc.). Transfer the solid and liquid to separate container for recovery and disposal. Were allowed by Federal, State or local regulations, the simplest method of disposal involves dilution to low concentrations in order to allow the biocide to degrade naturally. At levels below 10 parts per million (active), no detrimental effects on functioning waste treatment systems or the environment have been noted.

8) Special precautions for handling:

Packaging or bottling material; Recommended; Plastic **To be avoided;** Metal

9) Exposure controls / Personal protection

<u>Ventilation:</u>	None
<u>Respiratory protection:</u>	None
<u>Protective gloves:</u>	Use rubber gloves, when needed, to prevent skin contact.
<u>Eye protection:</u>	Wear safety glasses with side shields under normal use conditions.
<u>Other protective equipment:</u>	Running water to treat possible exposure.

10) Physical an chemical properties

<u>Form:</u>	Limpid liquid, colourless, foaming
<u>Colour:</u>	Clear
<u>Odour:</u>	Slight bitter smell, Bitter taste
<u>Melting point:</u>	Not applicable
<u>Boiling point:</u>	Not known
<u>Bulk density:</u>	Not applicable
<u>Vapour pressure:</u>	Not known
<u>Relative vapour density (air-1):</u>	Not known
<u>Evaporation rate (Butyl acetate=1):</u>	Not known
<u>Water solubility:</u>	Soluble
<u>Ph-value:</u>	6,2 - 9
<u>Compatibility:</u>	Not compatible with concentrated anionic compounds.
<u>Tolerance:</u>	Tolerant of both acid and alkaline medium (3,5 - 9 pH).
<u>Inert chemicals:</u>	Does not contain phenol, iodine, aldehyde, hypochlorite or Bromide.

Material Safety Data Sheet

ICA International Chemicals (Pty)Ltd.

Telephone & Fax

28 Planken Street
Plankenbrug Industrial
Stellenbosch
7600

+27-(0)21-8869812 (Tel)
+27-(0)21-8868209 (Fax)

South Africa

Pages 3 of 4

11) Stability and reactivity:

Stability:

Stable (X) Unstable ()

Conditions to avoid: Not known

Dangerous polymerization: No

Dangerous incompatibility with water: No

Dangerous Reactions: With Strong oxidizing agents

12) Toxicology information:

Acute oral toxicity (LD50):

Rat: > 4000mg / Kg

Mutagenicity

Salmonella: not mutagenic with or without metabolic activation

Not mutagenic

For Didecyldimethylammonium Chloride: (Ames, CHO/HGPRT, CHO, DNA Synthesis)

Rat:

No evidence of chromosomal damage in the bone marrow of rats treated with 2000 mg/kg.

Reproductive toxicity:

rat: not teratogenic

treatment with 40 to 210 mg/kg on days 6 to 15 gestation

Rat:

For Didecyldimethylammonium Chloride: no reproductive effect for treatment at or below mild toxic effects level

Not castogenic in Chinese hamster ovary cells with or without metabolic activation

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

Pharmacokinetics:

Dog:

For Didecyldimethylammonium Chloride: this material does not accumulate in body tissues

Material Safety Data Sheet

ICA International Chemicals (Pty)Ltd.

Telephone & Fax

28 Planken Street
Plankenbrug Industrial
Stellenbosch
7600

+27-(0)21-8869812 (Tel)
+27-(0)21-8868209 (Fax)

South Africa

Pages 4 of 4

13) Ecotoxicology and Ecology information

Fish toxicity (LC50):

Salmon:

Test period : 96 hours

For Didecyldimethylammonium Chloride (100% active): 1mg/l

Toxicity for Daphnia (EC50):

Daphnia magna:

Test period : 48 hours

For Didecyldimethylammonium Chloride (100% active): 0,94 mg/l

Dietary Toxicity Test:

LC50 oral : > 5620 ppm

For Didecyldimethylammonium Chloride (100% active): (bobwhite quail and mallard duck)

14) Disposal considerations

Disposal

Product: Dispose of in compliance with all Federal, State and local laws and regulations.

Incineration is the preferred method.

Packaging: Dispose of container after thorough rinse. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by authorities, by burning.

This information concerns only the product conforming to its specifications and limits to the uses herein stated. This sheet complements the technical sheet of use but doesn't replace it. The information contained on this sheet is based on knowledge of the product on date of publication. It is given in good faith.