First print date: March 2014

Version: 08

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier:

Identification as on the label/Trade name: HTH® All-in-One Algaecide Micro

Additional information: Product Code: ALLM1

Relevant identification uses of the substance and uses advised against:

Identified uses: Swimming pool water treatment.

Uses advised against: Anything other than swimming pools.

Details of the supplier of the Safety Data Sheet:

Innovative Water Care SA Holding (Pty) Ltd.

(Reg. No. 2018/623823/07)

P O Box 150, Kempton Park, 1620

Situated At: NCP Chloorkop Factory Site

Hytor Street

Chloorkop

Kempton Park, 1619

Emergency telephone numbers:

Poisons Information Centre: 0861 555 777 (24 hours)
+27 11 976 2115 (office hours only)

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substances or mixture:

The mixture is classified according to:
SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]

Hazard classes/Hazard categories	Hazard statement
Acute Toxicity oral (Category 4)	H302
Skin Corrosion (Category 1B)	H314
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H-Statements see section 16

The most important adverse effects:

The most important adverse physiochemical effects: None

The most important adverse human health effects: Harmful if swallowed. Causes skin burns and eye damage.

Label elements:

Hazard pictograms:

Signal Words: DANGER

Hazard Statements: H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P264 Wash thoroughly after handling. P280 Wear eye protection. P273 Avoid release to the environment. P302 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P305 +P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional regulations.

Special labelling of certain mixtures: None known.

Other hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture
Ingredients

Substance name (IUPAC)	CAS-No. / EC-No.	Concentration % by weight	Classification EC1272/2008
Didecyldimethylammonium chloride	7173-51-5 / 230-51-5	10-25	Acute Toxicity (Category 3) H301. Skin Corrosion (Category 1B) H314. Aquatic Acute (Category 1) H400. Aquatic Chronic (Category 1) H410.
Quaternary ammonium compounds	68424-85-1 / 270-325-2	5-10	Acute Toxicity (Category 4) H302. Skin Irritant (Category 2) H315.

			Eye Irritant (Category 2) H319. Aquatic Acute (Category 1) H400. Aquatic Chronic (Category 1) H410.

Solvent		1-5	Flammable liquid (Category 2) H225 Skin Irritant (Category 2) H315 Eye Irritant (Category 2) H319 Aquatic Chronic (Category 2) H411
Propan-2-ol	67-63-0 200-661-7	0.1-5	Flammable Liquid (Category 2) H225. Eye Irritant (Category 2) H319 STOT SE (Category 3) H336

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

Most important symptoms and effects, both acute and delayed:

In case of inhalation: If breathed in, move person into fresh air. Get medical attention immediately if irritation develops and persists.

In case of skin contact: Wash off with soap and plenty of water for at least 15 minutes. In case of discomfort seek medical attention.

In case of eye contact: Flush eyes thoroughly with water for 15 minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing. Seek medical attention immediately.

In case of ingestion: Immediately seek medical attention. Call the Poison Centre. Do NOT induce vomiting. Wash out the mouth. Give small quantities of water. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person.

Inhalation: No known significant effect or critical hazards.

Ingestion: Corrosive. Harmful if swallowed. Could cause severe burns of the mouth, throat, and stomach. Can cause sore throat, vomiting, diarrhoea.

Skin Contact: Corrosive. Causes severe skin burns.

Eye Contact: Corrosive. Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Note to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical observation for 48 hrs.

SECTION 5. FIREFIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Use water spray, dry powder or foam. Prevent contamination of drains or waterways.

Unsuitable extinguishing media: None known.

Special hazards arising from the mixture:

Hazards from the substance: This material is very toxic to aquatic life. Fire water should be contained and prevented from entering any waterway, sewer or drain
Hazardous thermal decomposition products: Decomposition products may include the following material: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds

Advice for fire-fighters:

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Evacuate the area. Keep unnecessary and unprotected personnel from entering the area. Avoid inhalation, and contact with skin. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Take note of exposure control under Section 8. See also the information for “non-emergency personnel”.

Environmental precautions:

Water polluting material. Collect spillage. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Methods for containment and cleaning up:

For small spills: Contain spilled material if possible. Use clay, soil or commercially available absorbents to recover any material that cannot be recovered as pure product. Collect in suitable and properly labelled containers. Contaminated absorbent material may pose the same hazard as the spilled product. Refer section 13 for information on disposal

For large spills: Contain spilled material if possible. Use clay, soil or commercially available absorbents to recover any material that cannot be recovered as pure product. Collect in suitable and properly labelled containers. Contaminated absorbent material may pose the same hazard as the spilled product. Refer section 13 for information on disposal

Reference to other sections:

See section 1 for emergency contact information

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

Additional information:

None known.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Protective measures: Observe directions on label and instructions on use. Put on appropriate personal protective clothing and equipment (see Section 8). Avoid contact with skin and eyes. Do not inhale

Advice on general occupational hygiene: Do not smoke. Do not eat drink or smoke when handling this product. Wash hands after handling the product.

Conditions for safe storage, including incompatibilities:

Keep cool and dry in a tightly sealed container away from direct sunlight. Do not store close to strong oxidizers or reducing agents. Stainless steel, polypropylene or polyethylene containers are recommended. Do not reuse the container.

Specific end uses:

Use only as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits: No data available.

Biological exposure indices (BEI): No data available.

Additional exposure limits under the conditions of use: No data available.

Exposure control:

Appropriate engineering controls: Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Use chemical goggles to avoid exposure to liquid splashes. If contact is possible, chemical face shields should be worn that provide a higher degree of protection. If inhalation hazard exists, a full face respirator is required.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include: Butyl rubber, Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, polyvinyl alcohol, Polyvinyl chloride.

Body protection: Personal Protective equipment (footwear and any additional skin protection measures) should be based on the task being performed and the risks involved and should be approved by a specialist before handling the product.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: None required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Orange**.**

Odour: Slight odour

Odour threshold: Not known.

pH (10% solution): 5-7

Melting point/range (ºC): Not known.

Boiling point/range (ºC): 100ºC.

Flash point (ºC): Not known.

Evaporation rate: Not known.

Flammability (solid, gas): Not known.

Ignition temperature (ºC): Not known.

Upper/lower flammability/explosive limits: Not known.

Vapour pressure (20ºC): Not known.

Vapour density: Not known.

Density (25ºC): 0.96-0.98.

Water solubility (g/l) at 20ºC: Not known.

n-Octanol/ Water partition coefficient: Not known.

Auto-ignition temperature: Not known.

Decomposition temperature: Not known.

Viscosity, dynamic (mPa s): Not known.

Physical hazards:

None.

Other information:

Fat solubility (solvent-oil to be specified): Not known.

Bulk density: Not known.

Dissociation constant in water (p Ka): Not known.

Oxidation-reduction potential: Not known.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

Not available

Chemical stability:

The product is stable.

Possibility of hazardous reactions:

Stable under recommended storage conditions.

Conditions to avoid:

No specific data.

Incompatible materials:

Strong oxidizing or reducing agents.

Hazardous decomposition products:

Oxides of carbon and nitrogen and hydrogen chloride.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No data available.

Method: No data available.

Dosage: No data available.

Routes of administration: No data available.

Results: No data available.

Absorption: No data available.

Distribution: No data available.

Metabolism: No data available.

Excretion: No data available.

Information on toxicological effects:

Acute toxicity:

Ingredient name	Result	Species	Dose	Exposure
Didecyldimethylammonium chloride	LD50 Oral	Rat	84mg/kg	
Quaternary ammonium compounds	LD50 Oral	Rat	426mg/kg	
Solvent	LC50 Inhalation Vapour LD50 Oral	Rat Rat	124700 mg/m3 7mg/kg	4 hours
Propan-2-ol	LD50 Dermal LD50 Oral	Rabbit Rat	12800 mg/kg 5000 mg/kg	

Skin corrosion/eye irritation:

Ingredient name	Result	Species	Exposure
Didecyldimethylammonium chloride	Skin - Severe irritant	Rabbit	500mg
Quaternary ammonium compounds	Skin - Severe irritant	Rabbit	25mg
Solvent	Eyes - Mild irritant Eyes -Moderate Irritant Eyes - Moderate irritant Eyes - Severe irritant Skin - Mild Irritant Skin - Moderate irritant	Rabbit Rabbit Rabbit Rabbit Rabbit Rabbit	24 hrs 500mg 0.066 min 100mg 100 microlitres 500mg 400mg 24 hrs 20mg
Propan-2-ol	Eyes - Moderate irritant Eyes - Moderate irritant Eyes - Severe irritant Skin - Mild irritant	Rabbit Rabbit Rabbit Rabbit	24 hrs 100mg 10mg 100mg 500mg

Sensitization: Not data available.

Mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT-single exposure: No data available.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Ingredient name	Result	Species	Exposure
Didecyldimethylammonium chloride	Acute EC50 110 ug/l Fresh water Acute EC50 14.22 ppb Fresh water Acute EC50 18ppb Fresh Water Acute LC50 39 ug/l Marine water Acute LC50 0.01 ug/l Fresh Water Chronic NOEC 25 ug/l Fresh water Chronic NOEC 125 ug/l Fresh water	Algae – chlorella pyrenoidosa – exponential growth phase Algae – pseudokirchneriella subcapitata Daphna – Daphnia magna Crustaceans – Americamysis bahia – juvenile (fledgling, hatchling, weanling) Fish – acipenser transmontanus – Larvae Algae – pseudokirchneriella subcapitata – exponential growth phase Daphnia – Daphnia magna	72 hours 96 hours 48 hours 48 hours 96 hours 72 hours 21 days
Quaternary ammonium chloride	Acute EC50 37 ppb Fresh Water Acute LC50 64 ppb fresh Water Chronic NOEC 4.15 ppb Marine Water Chronic NOEC 32.2 ppb	Daphnia – Daphnia magna Fish – Oncorhynchus mykiss Daphnia – Daphnia magna Fish – Pimephales promelas	48 hours 96 hours 21 days 34 days
Solvent	Acute EC50 17.921 mg/l Marine Water Acute EC50 2000 ug/l Fresh Water Acute LC50 25500 ug/l Marine water Acute LC50 42000 ug/l fresh water Chronic NOEC 4.995 mg/l marine water Chronic NOEC 0.375 ul/L fresh water	Algae – Ulva pertusa Daphnia – Daphnia magna Crustaceans – Artemia Franciscana – Larvae Fish – Oncorhynchus mykiss Algae – Ulva pertusa Fish – Gambusia holbrooki - larvae	96 hours 48 hours 48 hours 4 days 96 hours 12 weeks
Propan-2-ol	Acute LC50 1400000 to 1950000 ug/l marine water Acute LC50 1400000 ug/l	Crustaceans – crangon crangon Fish – gambusia affinis	48 hrs 96 hrs

Persistence and degradability:

No data available.

Bioaccumulative potential:

Ingredient name	LogPow	BCF	Potential
Solvent	-0.35	-	Low
Propan-2-ol	0.05	-	low

Mobility in soil

No data available.

Results of PBT& vPvB assessment:

No data available.

Other adverse effects:

No known significant effects or critical hazards

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Dispose of in accordance with municipal, provincial and national regulations.

Product/ packaging disposal:

Recycle where possible.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	1760	1760	1760
UN Proper shipping name:	CORROSIVE LIQUID, N.O.S (Didecyldimethylammonium chloride)	CORROSIVE LIQUID, N.O.S (Didecyldimethylammonium chloride)	CORROSIVE LIQUID, N.O.S (Didecyldimethylammonium chloride)
Transport hazard class:	8	8	8
Packaging group:	III	III	III
Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	Not required	Not required	Not required
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	No information	No information	No information

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

Relevant information regarding restrictions: None known.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations: None.

Chemical Safety Assessment carried out? No.

16. OTHER INFORMATION

Indication of changes:

GHS aligned.

2020/03/31 – Company logo changed to Sigura; Details of the supplier of SDS changed to reflect new

entity name.

Relevant classification and H statements (number and full text):

Aquatic Acute (Category 1): Hazardous to the Aquatic Environment Acute 1

Aquatic Chronic (Category 1): Hazardous to the Aquatic Environment Chronic 1

STOT SE 3- Specific Target Organ Toxicity single exposure (Category 3)

H225 Highly flammable liquid and vapour. H301 Toxic if swallowed**.** H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.H315 Causes skin irritation. H318 Causes serious eye damage.H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

Training instructions:

Use as instructed.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.