

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Product Name: Mosgo Algae Remover

Product Number(s): P2305 (1L), P2304 (2.5L), P1005 (5L), G1006 (20L)

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

Biocide Product

1.3 Details of the supplier of the safety data sheet

Hygeia Chemicals Limited, Carrowmoneash, Oranmore, Co. Galway

Tel: 091-794722

Fax: 091-794738

email: services@hygeia.ie**1.4 Emergency telephone number**

National Poisons Information Centre (Tel: 01-8379964) (Fax: 01-8368476)

Section 2: Hazards Identification**2.1 Classification according to Regulation (EC) 1272/2008 [EU-GHS/CLP]**

Skin Irrit. 2: H315; Eye Dam. 1: H318; Aquatic Acute 1: H400; Aquatic Chronic 3: H412

2.2 Label Elements**Labelling according to Regulation (EC) No 1272/2008 (CLP):****Hazard pictograms:**

GHS05: Corrosive

GHS09: Environment

Signal words:

Danger

Hazard statements:

H315: Causes skin irritation

H318: Causes serious eye damage

H400: Very toxic to aquatic life

H412: Harmful to aquatic life with long lasting effects

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection

P501: Dispose of contents/container to an approved waste disposal plant

P310: Immediately call a POISON CENTRE or doctor/physician

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

P101: If medical advice is needed, have product container or label at hand

P102: Keep out of reach of children

P103: Read label before use

2.3 Other hazards
Not Available

Section 3: Composition/information on ingredients

3.1 Substances
Not Available

3.2 Mixtures

Name	No.	Classification	% Wt.
Didecyldimethyl ammonium chloride	CAS No: 7173-51-5 EINECS: 230-525-2	Acute Tox. 3: H301; Skin Corr. 1B: H314; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	1-5%
Propan-2-ol	CAS No: 67-63-0 EINECS: 200-661-7	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336	1-5%

Section 4: First Aid Measures

4.1 Description of First Aid Measures

Eye Contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 10 minutes, maintaining eyelids open. Protect unharmed eye. Take care not to wash the chemical from one eye into the other. Obtain medical attention immediately. (Show this Safety Data Sheet)

Skin Contact: Remove contaminated clothing immediately. If skin contamination occurs wash immediately with plenty of clean, gently flowing water for at least 10 minutes. Repeat skin decontamination process until all signs of chemicals have gone. Obtain medical attention. (Show this Safety Data Sheet)

Ingestion: If ingestion is suspected, obtain medical attention immediately. Clean mouth with water. Do not induce vomiting without medical advice. (Show this Safety Data Sheet)

Inhalation: Move to fresh air. If there is breathing difficulty or coughing, keep patient at rest seated in position of maximum comfort. Obtain medical attention immediately. (Show this Safety Data Sheet)

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of any immediate medical attention and special treatment needed

Not available

Section 5: Firefighting Measures

5.1 Extinguishing media

Dry Powder, Water Spray, Foam

5.2 Special hazards arising from the substance or mixture

Products of combustion may be toxic

5.3 Advice for firefighters

As for all fires involving chemicals: chemical protection suit, suitable gloves for firefighters, boots and self-contaminated breathing apparatus

Section 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Wear appropriate protective clothing (see Section 8)
- 6.2 Environmental precautions**
Do not allow product to enter drains or water courses
- 6.3 Methods and material for containment and cleaning up**
Soak up with inert absorbent material, place in suitable labelled containers and dispose as hazardous waste. Where appropriate refer to Sections 8 & 13
- 6.4 Reference to other sections**
For personal protection see Section 8

Section 7: Handling and Storage

- 7.1 Precautions for safe handling**
When using do not eat, drink or smoke. Avoid contact with skin and eyes
- 7.2 Conditions for safe storage, including any incompatibilities**
Keep containers tightly closed in a dry, cool and well-ventilated place to which children do not have access. Keep away from food, drink and animal feeding stuff. Keep away from sources of ignition
- 7.3 Specific end use(s)**
Not Available

Section 8: Exposure Controls/Personal Protection**8.1 Control Parameters**

Chemical Name: Didecyldimethyl ammonium chloride
(CAS-No: 7173-51-5)

National Occupational Exposure Limits: None assigned in current edition of the Irish 2002 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001

Chemical Name:	CAS No:	Value Type (Form of Exposure)	Control Parameters	National Occupational Exposure Limits:
Propan-2-ol	67-63-0	TWA	200 ppm 500 mg/m ³	SMAK
		STEL	400 ppm 1000 mg/m ³	SMAK
		MAK	200 ppm 500 mg/m ³	DFG MAK
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		REL	400 ppm 980 mg/m ³	NIOSH/GUIDE
		STEL	500 ppm 1225 mg/m ³	NIOSH/GUIDE

8.2 Exposure Controls

Engineering Control Measures: The usual precautionary measures for handling chemicals should be observed

Hygiene Measures: When using do not eat, drink or smoke. Shower or bathe at the end of working

Respiratory Protection: Wear suitable respiratory equipment

Skin and Body: Wear suitable protective clothing

Hands:	Wear chemical resistant gloves
Eyes:	Wear suitable eye/face protection

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Off-white liquid
Odour:	Slightly alcoholic
pH:	7 (typical)
Specific Gravity:	1.00 g/ml @ 20°C (typical)
Boiling Point:	Approx. 100°C
Melting Point/Range:	Not applicable, aqueous solution
Decomposition Temp.:	No data available
Flash Point:	29°C closed cup (Didecyldimethyl ammonium chloride)
Auto Ignition Temp.:	No data available
Explosive Properties:	None known
Oxidising Properties:	None known
Vapour Pressure:	43hPa Solvent
Bulk Density:	Not applicable, aqueous solution
Solubility:	Water Solubility: Soluble
Fat/Solvent Solubility:	No data available
Partition Coefficient:	No data available
Viscosity:	25 mPa.s (20°C) (Didecyldimethyl ammonium chloride)

9.2 Other information

Not Available

Section 10: Stability and Reactivity

10.1 Reactivity

Stable under recommended storage conditions

10.2 Chemical stability

Stable under normal conditions of use

10.3 Possibility of hazardous reactions

Not Available

10.4 Conditions to avoid

Avoid direct heat, protect from frost

10.5 Incompatible materials

Strong oxidizing agents, reducing agents

10.6 Hazardous decomposition products

Nitrogen Oxides (NO_x), Hydrogen Chloride Gas, Carbon Oxides

Section 11: Toxicological Information

11.1 Information on toxicological effects

Didecyldimethyl ammonium chloride (CAS No: 7173-51-5)

Acute Oral Toxicity (LD₅₀):	238 mg/kg
	Species: Rat
	Method: OECD Test Guideline 401

Acute Dermal Toxicity (LD₅₀):	3342 mg/kg Species: Rabbit
Skin Irritation:	Irritating Species: Rabbit Exposure time: 3 min Method: OECD Test Guideline 404
Sensitization:	Not sensitizing Species: Guinea Pig Buehler Test Method: US-EPA
Genotoxicity in vitro:	Negative Ames test, Salmonella typhimurium Method: OECD Test Guideline 471 Negative Chromosome aberration test in vitro, CHO cells Negative Gene mutation, CHO cells
Genotoxicity in vivo:	Negative Chromosome aberration test in vivo Application Route: Oral Species: Rat Method: OECD Test Guideline 475

Section 12: Ecological Information

12.1 Toxicity

Didecyldimethyl ammonium chloride (CAS No: 7173-51-5)

Toxicity to Fish (LC ₅₀):	0,19 mg/l Species: Pimephales promelas (fathead minnow) Acute toxicity Exposure time: 96 h Method: US-EPA
Toxicity to fish (NOEC):	0,032 mg/l Species: Danio rerio (zebra fish) Chronic toxicity Exposure time: 34 d Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (EC ₅₀):	0,062 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Method: EPA-FIFRA
(NOEC):	0,010 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Method: OECD Test Guideline 211

Toxicity to algae (ErC₅₀): 0,026 mg/l
Species: Pseudokirchneriella subcapitata (green algae)
Growth inhibition
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to bacteria (EC₅₀): 11 mg/l
Species: activated sludge
Respiration inhibition
Exposure time: 3 h
Method: OECD Test Guideline 209

12.2 Persistence and Degradability

Readily biodegradable
Modified Sturm Test: 72%
Readily biodegradable
Testing period: 28d
Method: OECD Test Guideline 301B
Die-away Test: 93.3%
Testing period: 28d
OECD Confirmatory Test: 91%
Testing period: 24-70d
Method: OECD Test Guideline 303A

The surfactant(s) contained in this mixture complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer

12.3 Bioaccumulative Potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB Assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

12.6 Other Adverse Effects

Additional advice: Do not flush into surface water or sanitary sewer system
Discharge into the environment must be avoided

Section 13: Disposal Considerations

13.1 Waste treatment methods

Product Disposal: Dispose of according to local and national regulations
Container Disposal: Triple rinse containers with water and dispose of according to local and national regulations

Section 14: Transport Information

NOT CLASSIFIED AS HAZARDOUS FOR ROAD TRANSPORT

14.1 UN number

14.2 UN Proper shipping Name

14.3 Transport Hazard Class(es)

- 14.4 **Packing Group**
- 14.5 **Environmental Hazards**
- 14.6 **Special Precautions for User**
- 14.7 **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Section 15: Regulatory Information

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
- 15.2 **Chemical safety assessment**
No data available

Section 16: Other Information

Text of Phrases used in Sections 2 and 3:

Full text of H-Statements

H315	Causes skin irritation
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H410	Very toxic to aquatic life with long lasting effects

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, release and is not to be considered a warranty of quality specification. The 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 unless specified in the text