

Product Identification

Trade Name: Algae and Moss Killer.
Description: Wood preservative and surface biocide.

Hazardous Ingredients

Component	CAS Number	Classification	Conc.
di-n-decyl dimethylammonium chloride	7173-51-5	C, Xn; R22-34	2.5-10%
propanol-2-ol	67-63-0	Xi,F;R11-36-67	2.5-5%
Ingredients according to Directive 648/2004/EC: Cationic Surfactants.			5-15%

Hazard Identification

Hazard Designation: Xi; Irritant.
Health: The product is classified as irritating to eyes and skin.
Environmental: R36/38 Irritating to eyes and skin.

Emergency and First Aid

After Eye Contact: Rinse eyes thoroughly with plenty of water for at least 10 minutes while holding eyelids open. If symptoms persist, consult a physician.

After Skin Contact: Remove contaminated clothing immediately. Wash skin immediately with plenty of water and soap and rinse thoroughly. If skin irritation occurs, get medical advice.

After Ingestion: Rinse out mouth and then drink plenty of water. Do not induce vomiting. Call for medical help. Do not give anything by mouth to an unconscious person.

After Inhalation: Supply fresh air; consult doctor in case of symptoms.

Exposure Control/Personal Protection

Exposure Controls: There are no occupational exposure limit values available.

Engineering measures: Ensure adequate ventilation of the working area.

Personal Protection: Observe normal standards for handling chemicals. It is recommended that those with a medical history of sensitisation should not handle this product. Avoid contact with skin and eyes. Wash hands before breaks and after work. Wear protective equipment appropriate to the task.

Skin Protection: Butyl rubber gloves (also consider your own risk assessment; e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken).

Eye Protection: Safety goggles (e.g. EN 166).

Respiratory Protection: Respirator if ventilation is judged to be insufficient.

Other Protection: Protective overalls.

Handling and Storage

Handling: Handle in accordance with good hygiene and safety practice.

Storage: Ensure adequate ventilation of the storage area. Keep containers tightly closed and dry.

Accidental Release Measures

Environmental Precautions:	Prevent the material from entering drains or watercourses. If this occurs, inform relevant water authority if spillage has entered water course or sewer or has contaminated soil or vegetation.
Clean Up Methods:	Adhere to personal protective measures. Take up with absorbent material, e.g. sand, sawdust into tightly closable containers. Label container and dispose of as described.

Toxicological Information

Acute Toxicity: LD/LC₅₀ values that are relevant to the classification:

7173-51-5 di-n-decyl dimethylammonium chloride

Oral: LD50 330mg/kg (rat) Dermal: LD50 1330mg/kg (rat)

67-63-0 propan-2-ol

Oral: LD50 4570mg/kg (rat) Dermal: LD50 13400mg/k (rat) Inhalation: LC50 /4h 30mg/l (rat).

Primary Irritant Effect

On the Skin: Irritant for skin and mucous membranes. On the eye: Irritant effect. Sensitization: No known effect.

Ecological Information

Aquatic Toxicity:

7173-51-5 di-n-decyl dimethylammonium chloride.

EC₅₀ / 48 h 0.03mg/l (Daphnia) EC₅₀/48h 0.06mg/l (Selenastrum capricornutum) LC₅₀ 0.5mg/l (Brachydanio rerio).

67-63 propan-2-ol

EC₅₀/48h 13299mg/l (Daphnia) EC₅₀/72h >1000mg/l (Scenedesmus subspicatus) IC₅₀/17h 5175 mg/l

(Pseudomonas putida) IC₅₀/72h >100mg/l (Algae) >100mg/l (Bacteria) LC₅₀/48h LC₅₀/48h 8970mg/l (Leuciscus idus m.) LC₅₀/96h LC₅₀/96h /100mg/l (Fish).

Degradability: The DDAQ ingredient is readily biodegradable to EU guidelines.

Fire Fighting Measures

General Hazard:	The product is not flammable.
Extinguishing Media:	To suit local surroundings (e.g. water spray, carbon dioxide, foam or chemical powder).
Unsuitable Extinguishing Media:	All extinguishing media can be used.
Special Exposure Hazards:	The thermal decomposition products released should be considered toxic if inhaled.
Protective Equipment:	Wear self contained breathing apparatus and full protective clothing.

Waste Disposal

Advice on Disposal:	In accordance with national and local authority regulations, e.g. special waste or incineration.
Contaminated Packaging:	Treat empty containers in the same way as the product or if possible wash thoroughly and recycle.

Stability and Reactivity

Stability:	Stable under normal conditions of handling.
Conditions to Avoid:	Avoid strong heat.
Materials to Avoid:	Water reactive substances.
Hazardous Reactions:	No dangerous reactions known.
Hazardous Decompositions Products:	None, if storage and handling is done according to specification.

Transport Information

UK Transport Information:	UK Transport Classification: Not classified.
UN Number:	N/R.

Physical and Chemical Properties:

Appearance:	Clear mobile liquid.
Odour:	Odourless.
pH:	Neutral.
Boiling Point:	From 100°C.
Flash Point:	>60°C.
Water Solubility:	Fully miscible.

Regulatory Information

Classification and Labelling:	This product is classified in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations [CHIP3.1] Contains di-n-decyl dimethylammonium chloride.	
	Xi: IRRITANT	
Risk Phrases:	R36/38	Irritating to eyes and skin.
Safety Phrase:	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	S60	This material and/or its container must be disposed of as hazardous waste.
Identity of biocidal active substances according to EC directive 98/8/EC.	di-n-decyl dimethylammonium chloride.	

Disclaimer

The information in this document is offered for general health and safety guidance only and is not intended to be a definitive source of advice, nor does it constitute a risk assessment, for which the user is responsible. All information provided in this document is believed to be accurate to the best of our knowledge. Users of the products referred to should observe the recommendations, conditions and instructions relating to any relevant product label, usage information, consent or approval in force at the time. Further and more specific information may be obtained from the supplier on request (small fee may be required for this service). This company shall not be held liable for any damage resulting from handling or from contact with the above product.