AlgoClear PRO

Amenity cleaning

Algoclear Pro: The sustainable way to clean amenities safely & effectively

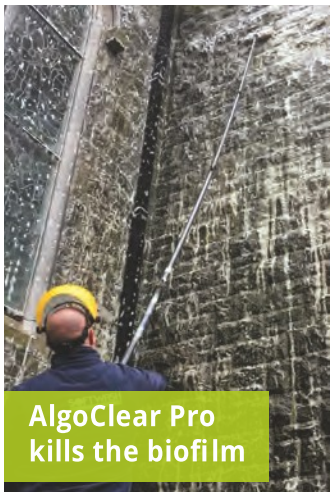
The product

AlgoClear Pro is a high purity Didecyl dimethyl ammonium chloride (DDAC). It is a quaternary ammonium, a cationic surface-active, agent commonly described as a biocidal surfactant and shows a propensity to foam when sprayed. Like all surfactants it has an affinity with lipids and makes them water soluble. It is sometimes used to degrease or de-grime surfaces.

The active ingredient has several beneficial properties:

- **It kills the biofilm.** The biofilm will consist of a mix of many bacteria species as well as fungi, algae, yeasts, protozoa, and other microorganisms living on a surface.
- **Algoclear Pro does not oxidise or interact with materials or metabolites.** It is safe for use on all building and landscape materials.
- **It is safe in use.** The recommended concentration for general amenity work is 1% w/w. At this dilution the product bears the same SDS hazard and precautionary statements as many common domestic products. Animals should be kept away during wet work, however it is a safe environment once dried. Any accidental overspray on foliage should be rinsed with water as appropriate.
- **Algoclear Pro has received HSE approval for "PT2" applications** and is designated as safe for use on children's play areas and equipment.
- **Algoclear Pro degrades in contact with live biomass.** This is the mechanism of environmental acceptability. The product cannot migrate into the ground or drainage system without being quickly deactivated. The amount of live biomass on a surface influences the application dosage.

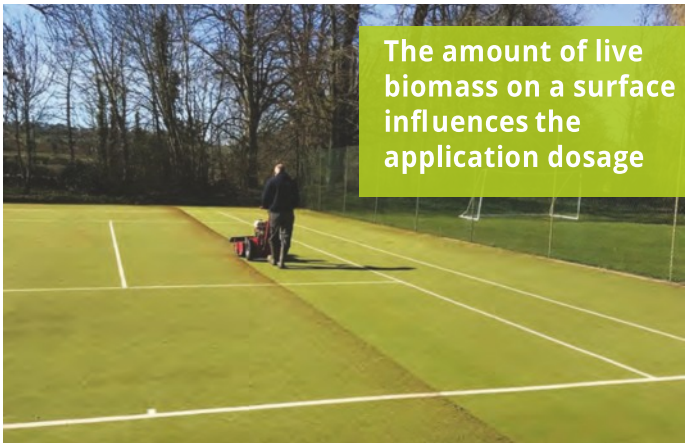
Apply by spray



AlgoClear Pro kills the biofilm

Before AlgoClear Pro

After AlgoClear Pro



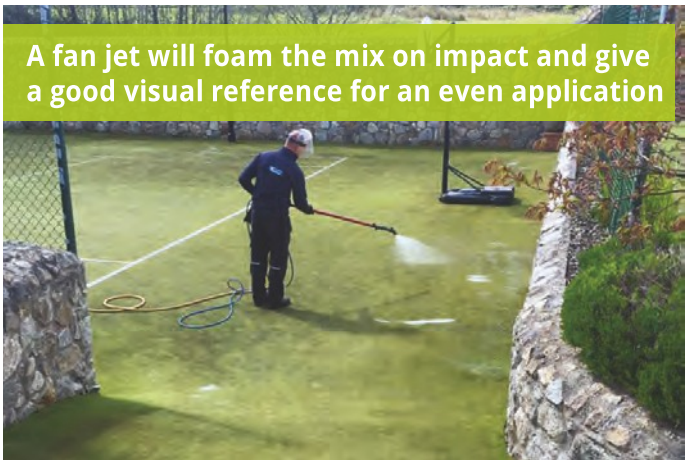
The amount of live biomass on a surface influences the application dosage

AlgoClear PRO

Amenity cleaning

Application

A successful application consists in using just enough **Algoclear Pro** to kill the biofilm factored by site conditions. The amount of **Algoclear Pro** to use will vary with the amount of live organisms to kill. It is therefore sensible to remove moss and loose material before application. A fan jet will foam the mix on impact and give a good visual reference for an even application. The amount of active ingredient in dry form per m² is the real measure of treatment potency. The dosage can be applied with a weak mix, applied liberally, or a strong one, applied thinly. When the water evaporates, the active ingredient remains as a pure salt deposit. It is very potent in this form and active at 70% relative humidity.



A fan jet will foam the mix on impact and give a good visual reference for an even application

Algoclear Pro: Treatment area per litre of concentrate	Ground work		Artificial grass	Masonry walls	Timber	Glass/GRP/ Metals
Biological Load	Average	Low	1 to 40: first pass	Saturation	Saturation	
Dilution rate	1 to 40	1 to 50	1 to 60: follow up	1 to 20	1 to 20	1 to 40
Diluted quantity/litre of concentrate	40 litres	50 litres	40 to 60 litres	20	20	40
Textured/ porous surfaces	4 to 5m²/litre = 160 to 200m²	4 to 5m²/litre = 200 to 250m²	4m²/litre = 160 to 240m²	Porous 2m²/litre = 40m²	3m²/litre = 60m²	
Smooth or non-absorbent surfaces	6m²/litre = 240m²	6m²/litre = 300m²		Painted 3m²/litre = 60m²		8m²/litre = 320m²

For artificial sports and large surfaces

The preferred method of product delivery is to use a greenkeepers walk-behind boom sprayer or a dosing box where **Algoclear Pro** is pre-mixed to the correct dilution and delivered through a garden hose.

For buildings

Mixing is best made using a precise injection device. A self-contained box, easy to carry on site which will automatically mix as you spray. Mains pressure is often sufficient to obtain a good plume of coarse and fast droplets using a pole or sprinkling device. If mains pressure does not produce a straight fan jet a booster pump will be needed.

Pathways - resin bound aggregates & brick paving

Algoclear Pro is diluted 1:40 and sprayed at a rate varying between 4 to 5 m² per litre of mix. The precise application rate will depend on the presence of gaps to be flooded and the porosity of the substrate.

Dosing box pre-mixes the correct dilution

Delivery using a walk behind boom sprayer

Mains pressure often sufficient using a pole

Application rate varies with porosity

Amenity cleaning

Black dots on sandstone

Lichens with a cyanobacterium as the photosynthetic partner tend to be dark grey, brown or black. They colonise sandstone displaying a dark hard cortex made of glued together (agglutinated) fungal filaments. The cortex can be harder than the stone it colonises and resists pressure washing. **Algoclear Pro** kills the cyanobacteria in a matter of minutes, the black cortex begins to lose it's cohesive strength. Under direct sunlight the decay is rapid.

After a few weeks weather begins to wash black marks away. When a faster result is required a vigorous brushing will help return the stone to its original level of aesthetic appearance.

In shady places brushing and light jetting are necessary. Once the stone has recovered periodical preventive maintenance is light. Site testing has revealed good and durable results at a dilution rate of 1:40, but an increased rate of decay can be seen at 1:20.

Blackened masonry

As with black dots on sandstone the agent producing the black metabolites is killed by saturating the substrate as deeply as practical with a 1:20 solution of **Algoclear Pro.** The agent on concrete structures is a filamentous fungus producing a black paste to protect itself from light. In areas exposed to the rain the metabolite will dissolve in a matter of weeks and the substrate recover fully within a few months depending on environmental climate factors.

For more immediate results or where rain does not reach use **Metaclear (see page 4 for product information).**

Masonry browning

In areas where the soil is rich in iron rendered walls will often display a yellow/brown ribbon at low level. **Oxiclear (see page 4 for product information)** is applied to remove the iron oxide from the render.

Timber

Algoclear Pro is designated "PT8" in the EU Biocidal Product Types regulations and is a wood preservative. The mechanism of this property is the ability of the product to kill the cause of wood rot : Fungi.

Decking & timber structures

The surface should first be returned to an acceptable visual state. Mucilage slime should be brushed with **Algoclear Pro** in its use as a surfactant. Other winter weather marks may be removed by brushing an acidic **Oxiclear (see page 4 for product information)** gel and rinsing. Bleach, being deleterious to wood lignin is to be avoided. Treatment with **Algoclear Pro** should be carried out on dry timber. The concept is to impregnate as much preservative as possible, emphasising joints and laps where wood rot usually begins.

Cladding

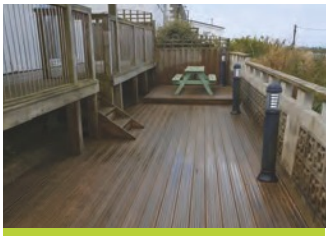
A yearly application of **Algoclear Pro** at a 1:20 dilution will keep black dots away and preserve the natural appearance and durability of cladding. **Algoclear Pro** may slightly accelerate the rate of "greying" of timber cladding under soffits however it is the amount of UV and rain reaching the timber that dissolves the natural dies and compounds until grey cellulose needles begin to appear.

Agglutinated fungal filaments

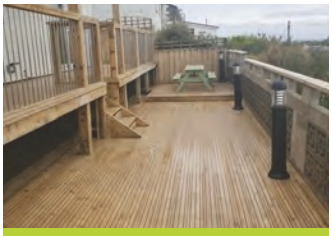
Cyanobacteria is killed in minutes

Masonry before AlgoClear Pro

Masonry after AlgoClear Pro



Timber and decking before AlgoClear Pro



Timber and decking after AlgoClear Pro

Beauty restored after AlgoClear Pro

Before and after AlgoClear Pro

Timber treatment and timber oils

The treatment should impregnate the wood and dry salts remain ensuring further protection when airborne fungal spores bedded into the wood fibre germinate. If natural grey is not a desired finish and oil or stain is applied, this needs applying post **Algoclear Pro** treatment.

Painted surfaces, cladding & caravans

The biofilm on painted surfaces is usually thin and easy to kill. Care should be taken to flood joint details, gaskets, edges and generally anywhere an alga could nest. Best results are achieved by using a water fed brush. The concentration can be adjusted to the amount of foaming desired. 1:40 gives a dense foam with good detergency. Rinse and leave to dry.

Amenity cleaning

Sports surfaces

Tarmac hard court, acrylic coatings, MUGA's, polymeric running tracks

The treated area should be free from leaves debris and moss. Dilution is 1:40 and application varies between 4 and 5m² per litre of mix depending on the porosity of the substrate. On porous tarmac or Tartan the dilution can increase to 1:50 and the application rate increased in the same proportion. This will contribute toward clearing and maintaining a good drainage system. The frequency of treatment varies year on year and with the site exposure. Broadly two treatments each year will maintain a court. Intermediate treatments can be applied on limited areas (under shade for instance).

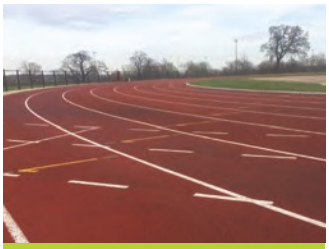
Moss

Remnants of thallus or small moss balls sometimes remain in cracks & crevices within tarmac. They will die and wither if the treatment is applied when thoroughly dry.

Artificial grass

The area to treat consists of both sides of each grass blade and the infill. On first application the treatment is more robust : 1:40 applied at 4m² per litre of mix. The follow up applications are usually diluted 1:60. The interval of treatment is guided by the first appearance of sand infill "caking". It is caused by a mucilage produced by the biofilm in the interstices of the grass and binding the aggregates below. In a maintenance visit the treatment is applied last.

On artificial ski slope matting the same principle applies with variations in quantities relative to the construction and exposure of each facility.



Area free from debris prior to cleaning

Moss balls will die and wither

Artificial grass after AlgoClear Pro

Artificial grass after AlgoClear Pro

Artificial ski slope matting

Artificial ski slope matting

Sceptic artificial grass

Since its introduction there has been received wisdom that artificial grass hosts pathogenic agents likely to cause abrasion injuries with a higher incidence of infected wounds. Recent studies aimed at identifying those agents have revealed that the suggestion of increased likelihood of infection was, by and large, unfounded. **Algoclear Pro** treatment - whilst sanitising the grass and infill – is intended to primarily keep the surface free from caking agents, the blades free from slippery mucilage and eventually moss.

Play areas

Rubber and wet pour surfaces are brushed and rinsed with a 1:40 solution of A**lgoclear Pro.** The application rate is conventional at 4m² per litre of mix. As with other porous grounds if drainage is slow, a more liberal application will contribute to clearing the filter layers beneath.

Metaclear - removes masonry black stains

Oxiclear - removes metallic oxides

Other products

Metaclear: An alkali gel for the removal of black stains on masonry. (Contains sodium hypochlorite).

Oxiclear: An acidic gel for many cleaning tasks but primarily for the removal of metallic oxides such as rust, lead carbonates etc. Also used for refreshing timber and plastic surfaces.

UK: TVSP Ltd, PO Box 1945, Maidenhead, Berkshire SL6 2DD
Tel: (44) 1628 687 022 | www.algoclear.com | info@algoclear.com | Contact: Francois Moal

IRELAND: Cropcare Ltd, Willowgrove, Delgany, A63 XC97, Co. Wicklow, Ireland
Tel: (353) 1287 4485 | www.softwashireland.ie | Contact: john@cropcare.ie

This document was received from: