



Quaternary ammonium –Didecyl Dimethyl Ammonium Chloride (DDAC)

Works by breaking open the membranes of bacteria and outer coatings of viruses.

Broad spectrum fungicide and bactericide for use on crops and in irrigation water.

Disinfectant for human pathogens on non porous hard surfaces and microbial control of plant pathogens on all types of surfaces.

Can be tank mixed with fungicides and insecticides for enhanced pest control.

Use in Irrigation line chemigation as a drip or in flood floors.

Spreader Sticker is **NOT needed**.

Up to 30 day residual control on surfaces.

Recommended rates for disease control:

Cutting dip - 0.13 fl oz/gal

Irrigation Line Injection: .003 - .009 fl oz/gal

Foliar spray: 0.06 - 0.25 fl oz/gal

Surface Cleaning: 0.50 - 1.0 fl oz/gal

Skin and eye irritant.

Biodegradable

High organic tolerance

High mineral tolerance in hard water up to 2000 ppm

A **very stable** chemical, that doesn't require a special color of container to protect from heat or light. This stability contributes to the low use rates and residual.

Class 8 Corrosive only

UN1903 Disinfectant, Liquid, corrosive, N.O.S. (Contains Isopropanol and Quaternary Ammonium compounds), 8, PG III

ACTIVE INGREDIENT

FUNCTION

FEATURES

USE RATES

HEALTH HAZARD

ENVIRONMENT

SHIPPING AND WAREHOUSING

Hydrogen peroxide = hydrogen dioxide

Works by producing destructive hydroxyl free radicals that attack membrane lipids, DNA, and other essential cell components.

Broad spectrum fungicide and bactericide for use on crops and in irrigation water.

Disinfectant for human pathogens on non porous hard surfaces and microbial control of plant pathogens on all types of surfaces.

Can be mixed with fungicides and insecticides for enhanced pest control.

Use in Irrigation line chemigation as a drip or in flood floors.

Spreader Sticker is **needed** for best results.

No residual control on surfaces.

Recommended rates for disease control:

Cutting dip - 0.5 fl oz/gal.

Irrigation line Injection: 2.6 - 5.1 fl oz/gal

Foliar Spray: 0.30 - 0.70 fl oz/gal

Surface Cleaning: 0.50-1.30 fl oz/gal

Skin and eye irritant.

Biodegradable

No organic tolerance

Low mineral tolerance in hard water

Extremely unstable under heat and light, so must be stored in brown, opaque bottle for protection.

The lack of stability contributes to the need for higher use rates.

Class 5.1 Oxidizer and Class 8 Corrosive

PACE KleenGrow™ -
Quaternary Ammonium
Product for Use in Agriculture



Other -
Quaternary Ammonium
Product for Use in Agriculture

4th generation quaternary ammonium - DDAC
 (DIDECYL DIMETHYL AMMONIUM CHLORIDE)

Single chain QAC molecule that works by breaking open the membranes of bacteria, fungi and outer coatings of viruses.

Use for disease control on crops, in water and on surfaces.

Residual Control: Up to 30 days control on hard surfaces and **up to 14 day on crops.**

Fungicide, Bactericide, Algicide and Virucide for Control of Plant and Human Pathogens.

REI:
 0 hr REI for surface disinfection.
 0 hr REI-continuous low rate chemigation.
 12 hr REI for intermittent high rate chemigation.

On Greenhouse Crops - Plant Pathogen Control:

- Overhead Spray
- Sub-irrigation

In Irrigation Water - Plant Pathogen and Algae Control:

- Irrigation Systems
- Cutting/Bulb dip water

On Surfaces:

- Plant Pathogen Control on all surfaces
- Disinfection on hard, non-porous surfaces

None corrosive in labeled use rate solutions.

Skin and eye irritant.

Biodegradable

High organic tolerance.

High mineral tolerance in hard water up to 2000 ppm.

Non-Flammable for Warehousing and Shipping
 USDOT: Class 8 Corrosive and UN 1903

ACTIVE INGREDIENT

FUNCTION

FEATURES

EPA REGISTRATION

AREAS OF USE

HEALTH HAZARD

ENVIRONMENTAL IMPACT

SHIPPING AND WAREHOUSING

3rd generation quaternary ammonium - ADBAC and ADEA (n-ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE and n-ALKYL DIMETHYL ETHYLBENZYL AMMONIUM)

Blend of two single chain QAC molecules that works by breaking open the membranes of bacteria, fungi and outer coatings of viruses.

Use on hard non-porous surfaces.

Residual Control: Up to 5 days control on surfaces.

Disinfectant for Control of Human Pathogens only.

REI:
 0 hr REI for hard non-porous surface disinfection.

Not labeled for Use of Crops.

In Irrigation Water - Algae Control in Nozzles only.

On Hard Non-porous surfaces only to prevent disease transfer.

Skin corrosion/irritation.

Causes severe skin burns and eye damage.

Biodegradable

Low organic tolerance.

Low mineral tolerance up to 400 ppm.

Non-Flammable for Warehousing and Shipping
 USDOT: Class 8 Corrosive and UN 1903

