



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Mr. Larry Jones
Integrated Environmental Technologies, Ltd.
4235 Commerce Street
Little River, SC 29566

Subject:

EcaFlo Anolyte

EPA Registration No. 82341-1 Amendment Date: October 13, 2009 EPA Receipt Date: October 20, 2009

Dear Mr. Jones,

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), section 3(C)(7)(A) is acceptable with the conditions below.

# **Proposed Amendment**

Addition of microorganism

#### **Conditions**

Revise the label as follows:

- 1) Revise the cross contamination claims on page 3, 28<sup>th</sup> claim and page 4, 9<sup>th</sup> claim to read: "...cross contamination between treated hard non-porous surfaces..."
  - 2) Revise Table Four, page 7 to include the following texts (two instances): "...Food contact surfaces must be rinsed with potable water after application of disinfectant."
- 3) Make the following revisions to Table Five, page 8.
  - Delete the claims for "cooling towers" and "Lazy Rivers" as your label does not include directions for use at these sites.
  - Revise "pipeline" to state: "pipelines associated with oil and gas production."
  - Delete the claim for "Non-Food produce areas" as produce is food

4) Add the following text to the Container Disposal section: "To clean the container before final disposal empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Dispose of rinsate as pesticide waste. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities."

# Efficacy Data

The following efficacy study was submitted in support of this product. The review of this data is attached.

Study	MRID Number	Study Status
Swine Influenza virus H1N1 ATCC VR-99	478931-01	Acceptable, in the presence of 5% serum, 500 ppm free chlorine, 10 minute contact time.

#### **General Comments**

A stamped copy of the accepted labeling with conditions is enclosed. Submit 1 copy of your final printed label before distributing or selling the product bearing the revised labeling.

Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3 (c) (5) and section 4 (a) when the Agency requires all registrants of similar products to submit such data.

If the above conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6 (e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. Should you have any questions concerning this letter, please contact Tracy Lantz at (703) 308-6415 or Velma Noble at (703) 308-6233.

Sincerely

Velma Noble

Product Manager (31)

Regulatory Management Branch I Antimicrobials Division (7510P)

Enclosure: Stamped Label, DER DP 371839

7510P:T. Lantz:3/4/2010:82341-1 PRIA acceptable WC

# **EcaFlo® Anolyte**Aqueous Solution of Sodium Chloride

#### EcaFlo® solutions:

- are disinfecting solutions,
- · are cost effective solutions to produce,
- are produced in a single stage process by a simple electrolytic cell,
- can be produced for use in medical, institutional, industrial and commercial applications,
- can be produced with a controlled pH and concentration of Free Available Chlorine (FAC), and
- · are produced with low energy costs from water and salt.

ACTIVE INGREDIENT:	
Hypochlorous Acid	0.046%
	99.9549
	TOTAL: 100,000%

Contains 500 ppm Free Available Chlorine (FAC)

# KEEP OUT OF REACH OF CHILDREN CAUTION

Manufactured by:
INTEGRATED ENVIRONMENTAL TECHNOLOGIES, LTD.
4235 Commerce St
Little River SC 29566

Ph: 843-390-2500 - Email: info@ietltd.net

EPA Reg# 82341-1

EPA Est# 82341-SC-1

EcaFlo® Anolyte must be used within 30 days after being produced. DATE PRODUCED: \_\_\_\_\_\_\_\_

ACCEPTED with COMMENTS in EPA Letter Dated:

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Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 82341/ **EcaFlo® Anolyte** is an activated aqueous solution of sodium chloride produced by passing weak salt brine through an electrolytic cell and temporarily changing the properties of the salt water into a powerful oxidizing agent exhibiting antimicrobial properties. **EcaFlo® Anolyte** is produced at a near neutral 6.5 pH where the predominant antimicrobial agent is hypochlorous acid, an efficient and efficacious specie of chlorine. Hypochlorous acid kills bacteria.

The properties of **EcaFlo® Anolyte** can be precisely controlled by manipulating power to the electrolytic cell, brine flow rate through the cell and the conductivity of the brine in the cell. Anolyte can be applied as a liquid or spray.

**EcaFlo® Anolyte** freezes at 32° F and boils at 212° F. Anolyte is a colorless, aqueous solution, with a slight chlorine or ozone odor. After production, **EcaFlo® Anolyte** must be stored in a closed, plastic container in a cool, dark area away from direct sunlight. Anolyte is intended to be used soon after being produced. The Anolyte product must be used within 30 days of production.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### **OIL AND GAS APPLICATIONS**

Frac Water – For typical water treatment, mix 5 US gallons of EcaFlo® Anolyte with 995 US gallons of frac water to 2.5 ppm FAC to mitigate and retard the growth of non-public health microorganisms such as anaerobic bacteria, aerobic bacteria and sulfate reducing bacteria to protect fracturing fluids, polymers and gels.

**Sour Wells** - For typical well treatment, slug dose 168 US gallons at 500 ppm FAC of EcaFlo® Anolyte into the well bore on a daily or weekly basis to control unwanted non-public health microorganisms, reduce hydrogen sulfide gas and restore well integrity.

**Produced Waters** - For typical produced water treatment, mix 21 US gallons of EcaFlo® Anolyte with 979 US gallons of produced water to 10.5 ppm FAC to retard the growth of non-public health microorganisms.

Heater Treaters, Hydrocarbon Storage Facilities & Gas Storage Wells – For typical storage facility treatment, mix 126 gallons of EcaFlo® Anolyte at 500 ppm FAC into the water phase of the mixed hydrocarbon/water system to retard the growth of non-public health microorganisms, control the formation of hydrogen sulfide and reduce corrosion of the storage tanks.

Water Flood Injection Water - For typical water flood injection water treatment, mix 21 US gallons of EcaFlo® Anolyte with 979 US gallons of injection water to 10.5 ppm FAC to retard the growth of non-public health microorganisms and control slime in pipelines.

Oil and Gas Transmission Lines - For typical transmission line treatment, slug dose 420 US gallons at 500 ppm FAC of EcaFlo® Analyte into the transmission line on a daily or weekly basis to control unwanted non-public health microorganisms, such as SRB's, reduce microbiologically influenced corrosion (MIC) and remove the slime and associated sessile bacteria which can degrade pipeline integrity.

ACCEPTED with COMMENTS in EPA Letter Dated:

Under the Federal insecticide,
Fungicide, and Redenticide Act as
amended, for the posticide,

registered under EPA Reg. No. \$234/-/

#### **DISINFECTION APPLICATIONS**

#### Hard, Non-Porous Surface Disinfection

To [Clean and] Disinfect [and Deodorize] Hard, Non-Porous Surfaces: For heavily soiled areas, a preliminary cleaning is required. Apply [Wipe or Dip] EcaFlo® Anolyte at 500 ppm FAC to hard, non-porous surfaces with a cloth, wipe, mop or sponge. Treated surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Food contact surfaces such as counters and tables must be rinsed with potable water. Do not use on utensils, glasses or dishes.

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semi-critical devices prior to sterilization or high-level disinfection.

<u>Pathogen</u>	Contact Tim
Salmonella enterica ATCC 10708	10 minutes
Pseudomonas aeruginosa ATCC 15442	10 minutes
Staphylococcus aureus ATCC 6538	10 minutes
Staphylococcus aureus MRSA ATCC 33591	10 minutes
Swine Influenza virus H1N1 ATCC VR-99)	10 minutes

#### Claims:

- + Broad spectrum disinfectant
- + One step cleaner/disinfectant
- + Aids in the reduction of cross-contamination between treated surfaces
- + Assures proper strength, product effectiveness and standardizes technique
- + Formulated for bacteria fighting
- + Bactericide or Bactericidal
- + Bathroom disinfectant
- + Kitchen disinfectant
- + Nursery disinfectant
- + Athletic facility disinfectant
- + Cleans and disinfects (insert use site(s) from tables 1-5)
- + Cleans and disinfects hard, non-porous surfaces
- + Cleans, deodorizes and disinfects
- + Deodorizes by killing the germs that cause odors
- + Disinfecting formula
- + Disinfects and deodorizes by killing bacteria and their odors
- + Disinfects hard, non-porous surfaces (throughout the (insert use site(s) from tables 1-5)
- + Easy and convenient disinfecting (throughout the (insert the use site(s) from tables 1-5)
- + Easy one-step cleaning and disinfecting
- + Effective against or Kills (insert any organism(s) from table above)
- + Effective against or Kills a wide range of bacteria including Staphylococcus aureus MRSA, Salmonella enterica, Pseudomonas aeruginosa
- + Effectively disinfects hard, non-porous, environmental surfaces
- + Eliminates odors at their source; bacteria
- + Eliminates or Reduces odors caused by bacteria
- + Fight(s) and/or Kill(s) and/or Effective against Salmonella enterica
- + Fight(s) and/or Kill(s) and/or Effective against Staphylococcus aureus MRSA
- + Fight(s) and/or Kill(s) and/or Effective against Pseudomonas aeruginosa
- + Fight(s) and/or Stops and/or Prevent(s) cross-contamination on hard, non-porous surfaces (in your (list any use site))
- + Kills bacteria
- + Kills many common bacteria
- + Kills odor-causing bacteria
- + Kills or Effective against bacteria

ACCEPTED with COMMENTS in EPA Laster Dated:

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registered under EPA Reg. No. 92341/

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- + Multi-purpose disinfectant
- + One-step cleaner and disinfect.
- + One-step disinfectant cleaner designed for general cleaning and disinfecting hard, non-porous environmental surfaces in health care facilities or (insert use site(s) from table 1)
- + Pseudomonocidal
- + Ready-to-use hospital disinfectant
- + Staphylocidal
- + The answer to your disinfecting needs
- + The quick and/or easy and/or convenient way to disinfect
- + This product controls cross-contamination on most hard, non-porous surfaces
- + This product meets AOAC efficacy testing requirements or standards for hospital disinfection
- + Use in public or common places where bacteria may be of concern on hard, non-porous surfaces
- + Use where control of the hazards of cross-contamination between treated surfaces is of Prime importance
- + Kills or Effective against H1N1 Swine Influenza virus

ACCEPTED with COMMENTS in EPA Letter Dated:

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 8234/-/

# **GENERAL CLAIMS**

+ Convenient

+ Easy to handle

+ For general use

+ For use on bathroom surfaces

+ For use on nursery surfaces

+ For use in athletic facilities

+ Suitable for hospital use

+ For use on athletic equipment

+ Will not harm (insert surface material(s) from table 5)

+ Will not harm hard, non-porous inanimate environmental surfaces

+ Will not harm titanium-coated, medical grade stainless steel

# **TABLE ONE: Medical:**

# **USE SITES**

Ambulances – or – Emergency Medical Transport Vehicles

Anesthesia Rooms – or – Areas

Assisted Living - or - Full Care Nursing Homes

**CAT Laboratories** 

Central Service Areas

Central Supply Rooms – or – Areas

Critical Care Units - or - CCUs

**Dialysis Clinics** 

Emergency Rooms - or - ERs

Health Care Settings - or Facilities

Home Health Care Settings

Hospitals

Hospital Kitchens

Intensive Care Units – or – ICUs

Laboratories

Medical Clinics

Medical Facilities

Medical - or - Physician's - or - Doctor's Offices

Newborn - or - Neonatal Nurseries

Nursing – or – Nurses' Stations

Orthopedics

**Outpatient Clinics** 

Patient Restrooms

**Patient Rooms** 

Pediatric Examination Rooms - or - Areas

**Pharmacies** 

Physical Therapy Rooms – or – Areas

Radiology – or – X-Ray Rooms – or – Areas

Surgery Rooms – or – Operating Rooms – or – ORs

### **SURFACES**

bed pans

ACCEPTED with COMMENTS in EPA Longs Dated:

Under the Federal insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide,

registered under EPA Reg. No. 82344

exam – or - examination tables

external surfaces of medical equipment - or - medical equipment surfaces

external surfaces of ultrasound transducers

gurneys

hard, non-porous environmental hospital – or – medical surfaces

hospital – or – patient bed railings – or – linings – or - frames

IV poles

Patient chairs

Plastic mattress covers

Reception counters – or – desks – or – areas

Stretchers

Wash basins

Wheelchairs

# **TABLE TWO: Dental:**

**USE SITES** 

**Dental Operatories** 

Dental – or – Dentist's Offices

**SURFACES** 

Dental countertops

Dental operatory surfaces

Dentist – or – dental chairs

Hard, non-porous environmental dental surfaces

Light lens covers

Reception counters - or - desks - or - areas

ACCEPTED with COMMENTS in EPA Letter Dated:

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. \$234/-/

# TABLE THREE: Veterinary:

Animal Premises: Remove all animals and feed from the premises, vehicles and enclosures. Remove all litter, droppings and manure from the floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap and/or detergent and rinse with water. Apply EcaFlo® Anolyte at 500 ppm FAC. Saturate surfaces with solution for 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure. After application, ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

**USE SITES** 

**Animal Housing Facilities** 

Animal Life Science Laboratories

Animal – or – Pet Grooming Facilities

Kennels

Livestock - and/or - Swine - and/or - Poultry Facilities

Pet Areas

Pet Shops – or – Stores

Small Animal Facilities

Veterinary Clinics – or – Facilities

Veterinary Offices

Veterinary - or - Animal Hospitals

#### **SURFACES**

Animal equipment automatic feeders

Cages

External surfaces of veterinary equipment

Feed racks

**Fountains** 

Hard, non-porous environmental veterinary surfaces

Reception counters - or - desks - or - areas

Stalls

**Troughs** 

Veterinary care surfaces

Watering appliances

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Under the Federal Insecticide, Fungicide, and Rodenticide Act as registered under EPA Reg. No. 82344 –)

# **TABLE FOUR: Food Service:**

Food Processing and Service Establishments: Before using this product, food products and packaging materials must be removed from the area or carefully protected.

USE SITES (Food contact surfaces must be rinsed with clean, potable water)

Bars

Cafeterias

Commercial – or – Institutional Kitchens

Delis

Fast Food Chains – or – Restaurants

Food Preparation and Processing Areas

Food Processing and Fabrication Areas

Food Service – or – Processing Establishments

Food Serving Areas

Other Food Service Establishments

Restaurants

School Kitchens

SURFACES (Food contact surfaces must be rinsed with clean, potable water)

Surfaces where disinfection is required

Exterior surfaces of Appliances

Exterior surfaces of Dish racks

Drain boards

Exterior surfaces of Food Cases

Exterior surfaces of Food Trays

Exterior surfaces of Freezers

Hoods

Exterior surfaces of Microwaves

Outdoor furniture (excluding wood frames and upholstery)

Exterior surfaces of Ovens

Exterior surfaces of Refrigerators

Salad bar sneeze guards

Exterior surfaces of Stoves – or – Stovetops

# TABLE FIVE: Miscellaneous/General:

**USE SITES** 

Airplanes

**Blood Banks** 

**Boats** 

**Bowling Alleys** 

**Butcher Shops** 

Chillers

Churches

Colleges

#### Towers

Correctional Facilities

Cruise Lines

Day Care Centers

**Dormitories** 

**Factories** 

Funeral Homes

**Grocery Stores** 

Gymnasiums – or – Gyms

Health Club Facilities

Hotels

**Industrial Facilities** 

Laundromats

Laundry Rooms

#### I and District

Locker Rooms

Manufacturing Plants - or - Facilities

Military Installations

Motels

**Pipelines** 

Preschool Facilities

# Man food Produce Areas

Public Areas

Recreational Centers – or – Facilities

Restrooms – or – Restroom Areas

School Buses

Schools

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Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, tegistered under EPA Heg. No. 8234/-/ Shelters

Shower Rooms

Storage Rooms - or - Areas

Supermarkets

Trains

Universities

Wineries

Yachts

#### **SURFACE**

Bathroom fixtures

Bath tubs

Behind and under counters

Behind and under sinks

Booster chairs

Cabinets

Ceilings

Cell(ular) – or – wireless – or – mobile – or – digital phones

Chairs

Computer keyboards

Computer monitors

Counters - or - countertops

Cribs

Desks

Diaper – or – infant changing tables

Diaper pails

Dictating equipment surfaces

Doorknobs

Exterior – or – external toilet surfaces

Exterior – or – external urinal surfaces

**Faucets** 

Floors

Garbage - or - trash cans

Grocery store – or – supermarket carts

Hampers

Hand railings

Headsets

Highchairs

Lamps

Linoleum

Other telecommunications equipment surfaces

Playpens

Shelves

Showers - or - shower stalls

Sinks

Stall doors

**Tables** 

Telephones

Tiled walls

ACCEPTED with COMMENTS in EPA Letter Dated:

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Under the Federal Insecticide, Fungicide, and Redenticide Act as amended, for the pesticide, registered under EPA Heg. No 8234/-/

Toilet rims

Toilet seats

Towel dispensers

Toys

Vanity tops - or - vanities

# SURFACE MATERIALS

Baked enamel

Chrome

Common hard, non-porous household – or – environmental surfaces

Formica

Glass

Glazed ceramic tile

Glazed porcelain

Laminated surfaces

Plastic laminate

Glazed porcelain enamel

Stainless steel

Synthetic marble

Vinyl tile

Similar hard, non-porous surfaces except those excluded by the label

Not Recommended For Use On – or – Avoid Contact With:

Aluminum

Brass

Chipped enamel

Clear plastic

Clothes

Copper

**Fabrics** 

Gold

Natural marble

Painted surfaces

Paper surfaces

Natural rubber

Sealed granite

Silver

Unfinished wood

Wood

ACCEPTED with COMMENTS in EPA Letter Dated:

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Under the Federal insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 82341-

STORAGE AND DISPOSAL taminate water, food or feed by storage of sposal.

Storage: Store in a closed dark plastic container away from direct sunlight. Store container in a cool dry area. Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Disposal: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Cleaning the container before final disposal is the responsibility of the person disposing the container.

# FIRST AID

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center (NPIC) 1-800-858-7378 for emergency medical treatment information:

> PRECAUTIONARY STATEMENTS **Hazards to Humans and Domestic Animals CAUTION**

> > ACCEPTED. with COMMENTS in EPA Letter Dated:

Under the Federal insecticide. Fungicide, and Rodenucide Act as amended, for the pesticide, registered under EPA Reg. No. 8234/-/