

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : OpteraPro DUO GC , OpteraPro DUO GC Insecticide
Product code : NUL-3663 EUPG Insecticide

1.2. Other means of identification

Other means of identification : EPA REG NO. 228-769

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Insecticide
Restrictions on use : RESTRICTED USE PESTICIDE Toxic to fish and other aquatic organisms. For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

1.4. Supplier's details

Nufarm Americas, Inc.
11901 South Austin Avenue
Alsip, IL 60803
United States
T 1-800-345-3330
www.nufarm.com

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 16105
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral), Category 3	H301	Toxic if swallowed.
Skin sensitization, Category 1B	H317	May cause an allergic skin reaction.
Carcinogenicity, Category 2	H351	Suspected of causing cancer.
Specific target organ toxicity — Repeated exposure, Category 1	H372	Causes damage to organs (central nervous system) through prolonged or repeated exposure.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H301 - Toxic if swallowed
H317 - May cause an allergic skin reaction

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Precautionary statements (GHS US)

H351 - Suspected of causing cancer.
H372 - Causes damage to organs (central nervous system) through prolonged or repeated exposure
: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, spray, vapors.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye and face protection.
If swallowed: Immediately call a poison center or doctor.
Rinse mouth.
Get medical advice or attention if you feel unwell.
If on skin: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

7.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Chlorantraniliprole	CAS-No.: 500008-45-7	8.88 – 9.82	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Propylene glycol	CAS-No.: 57-55-6	7.11 – 7.85	Not classified
Bifenthrin Technical	CAS-No.: 82657-04-3	6.84 – 7.56	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Sens. 1B, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Comments : The concentration ranges are provided due to batch-to-batch variability.

Full text of hazard classes and H-statements : see section 16

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SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth. Call a physician immediately.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim is unconscious: Lay in a stable manner on victim's side. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. Call a physician immediately.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause slight irritation.
Symptoms/effects after ingestion	: Toxic if swallowed.
Chronic symptoms	: Suspected of causing cancer. Causes damage to organs (nervous system) through prolonged or repeated exposure.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Call a physician or poison control center immediately.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry chemical, CO2, alcohol-resistant foam or waterspray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Hydrogen fluoride.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all personal contact including breathing in the mist, spray, vapors. Do not take actions involving personal risks. Absorb spillage to prevent material-damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Evacuate the danger area. If outdoors, move to an area upwind of the danger area. Do not breathe mist, spray, vapors. Avoid contact with skin and eyes. If possible without taking personal risks, Remove ignition sources, ventilate area. Prevent other non-emergency personnel from entering the danger area.

For emergency responders

Protective equipment : Wear the recommended personal protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate personnel to a safe area. Do not touch spilled material. Stop leak if safe to do so.
Environmental precautions : Do not let the product reach soil, drains, sewers, or surface and ground water.

6.2. Methods and materials for containment and cleaning up

For containment : Contain with non-combustible inert absorbent. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Contaminated absorbent material may pose the same hazard as the spilt product. Decontaminate surfaces and equipment with water and detergent. Until a sufficient level of dilution is achieved, the decontamination water may pose the same hazards as the product. Notify authorities if product enters sewers or public waters. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Do not breathe mist, spray, vapors. Avoid contact with skin, eyes and clothing. Take precautionary measures against static discharge.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a cool, dry and well-ventilated area away from incompatible substances. Avoid extreme temperatures. Protect from sunlight. Keep container tightly closed. Store in a secure location. Do not store near food, foodstuffs, drugs, or potable water supplies.
Incompatible materials : Strong oxidizing agents.
Specific end uses : Insecticide.
Packaging materials : Always store product in container of same material as original container.

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Propylene glycol (57-55-6)

USA - AIHA - Occupational Exposure Limits

WEEL TWA	10 mg/m ³ aerosol
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8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Use general ventilation, local exhaust ventilation, or process enclosure to keep the airborne concentrations below the permissible exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

Wear protective gloves. Chemically impervious gloves as described by OSHA's hand protection regulations in 29 CFR 1910.138

Eye protection:

Wear safety glasses which protect from splashes

Skin and body protection:

Body protection should be chosen depending on activity and possible exposure. Long sleeved protective clothing

Respiratory protection:

Wear respiratory protection. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: Off-white
Odor	: No data available
Odor threshold	: No data available
pH	: 7.33 (1% aqueous)
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 102 °C / > 215.6 °F
Flammability (solid, gas)	: Non flammable.

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Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 143.9 cP @ 20 °C / 68 °F
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Carbon dioxide. Carbon monoxide. Hydrogen fluoride. Hydrogen chloride.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified.

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Unknown acute toxicity (GHS US)	7.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
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Chlorantraniliprole

LD50 oral	5000 mg/kg
LD50 dermal	5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5.1 mg/l/4h

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Propylene glycol	
LD50 oral rat	22000 mg/kg body weight
LD50 oral	8000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg body weight
LD50 dermal	20800 mg/kg
LC50 Inhalation - Rat	> 44.9 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 7.33 (1% aqueous)

Propylene glycol	
Skin corrosion/irritation, human	Not irritating

Serious eye damage/irritation : Not classified
pH: 7.33 (1% aqueous)

Propylene glycol	
Additional information	Not irritating to rabbits on ocular application

Respiratory or skin sensitization : May cause an allergic skin reaction.

Propylene glycol	
Patch test, human	Not sensitive
Additional information	No sensitizing reaction was observed for guinea pigs

Germ cell mutagenicity : Not classified

Propylene glycol	
Dominant lethal test, rat	Negative

Carcinogenicity : Suspected of causing cancer.

Propylene glycol	
Carcinogenicity: Lifetime study, Dermal, mouse	2-21 mg/day (No increased incidence in tumors)

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Causes damage to organs (central nervous system) through prolonged or repeated exposure.

Bifenthrin Technical	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Propylene glycol	
NOAEL (subchronic,oral,animal/male,90 days)	443 mg/kg body weight

Aspiration hazard : Not classified
Symptoms/effects after inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : May cause slight irritation.
Symptoms/effects after ingestion : Toxic if swallowed.
Chronic symptoms : Suspected of causing cancer. Causes damage to organs (nervous system) through prolonged or repeated exposure.

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SECTION 12 Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects

Chlorantraniliprole	
EC50 - Crustacea [1]	0.0116 mg/l
NOEC chronic crustacea	0.00286 mg/l

Bifenthrin Technical	
LC50 - Fish [1]	0.35 µg/l
EC50 - Crustacea [1]	0.16 µg/l
LC50 - Fish [2]	0.15 µg/l

Propylene glycol	
LC50 - Fish [1]	100 mg/l
EC50 - Crustacea [1]	1000 mg/l
EC50 72h - Algae [1]	24200 mg/l
EC50 72h - Algae [2]	19300 mg/l
EC50 96h - Algae [1]	19000 mg/l
EC50 96h - Algae [2]	19100 mg/l
ErC50 algae	1000 mg/l
NOEC chronic crustacea	1000 mg/l
NOEC chronic algae	1000 mg/l

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
Chlorantraniliprole	
Persistence and degradability	Not rapidly degradable
Bifenthrin Technical	
Persistence and degradability	Not rapidly degradable
Propylene glycol	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Refer to all applicable national, international and local regulations or provisions.
Additional information : Do not re-use empty containers.
Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
UN2902	2902	2902
14.2. Proper Shipping Name		
Pesticides, liquid, toxic, n.o.s. (Bifenthrin Technical)	PESTICIDE, LIQUID, TOXIC, N.O.S. (Bifenthrin Technical)	Pesticide, liquid, toxic, n.o.s. (Bifenthrin Technical)
14.3. Transport hazard class(es)		
6.1	6.1	6.1
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
	Dangerous for the environment: Yes Marine pollutant: Yes	
No supplementary information available		

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
UN-No. (DOT) : UN2902
DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

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DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
IMDG	
Special provision (IMDG)	: 61, 223, 274
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2, TP28
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Liquid pesticides which present a very wide range of toxic hazard. Miscibility with water depends upon the composition. Toxic if swallowed, by skin contact or by inhalation.

IATA	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y642
PCA limited quantity max net quantity (IATA)	: 2L
PCA packing instructions (IATA)	: 655
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 663
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 6L

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:		
Chlorantraniliprole	CAS-No. 500008-45-7	8.88 – 9.82%
Bifenthrin Technical	CAS-No. 82657-04-3	6.84 – 7.56%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
Bifenthrin Technical	CAS-No. 82657-04-3	6.84 – 7.56%

FIFRA Labelling

EPA Registration Number	228-769
This chemical is a pesticide product registered by the U.S. Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label.	

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15.2. International regulations

CANADA

Chlorantraniliprole (500008-45-7)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Bifenthrin Technical (82657-04-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Propylene glycol (57-55-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Bifenthrin Technical (82657-04-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Propylene glycol (57-55-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

 **WARNING:** This product can expose you to Ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Bifenthrin Technical (82657-04-3)	U.S. - New Jersey - Right to Know Hazardous Substance List
Propylene glycol(57-55-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Issue date : 8/21/2026

Full text of hazard classes and H-statements	
H300	Fatal if swallowed
H301	Toxic if swallowed
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure

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Full text of hazard classes and H-statements	
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.