

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
 Product name : MACHO 2.0 FL
 Product code : 100193,100194,100195,100196

1.2. Other means of identification

Registration Number: 42750-110

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Insecticide, Read and understand the entire label before using. Use only according to label directions. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
 Restrictions on use : All other uses not indicated.

1.4. Supplier's details

Albaugh, LLC
 1525 NE 36th Street
 Ankeny, IA 50021
 T (515) 965-5240

1.5. Emergency phone number

Emergency number : For MEDICAL EMERGENCY (US or CANADA) 1-888-347-6732.
 For CHEMICAL LEAK, SPILL, FIRE, or EXPOSURE Call 1-800-424-9300, Outside USA and Canada: +1 703-741-5970 (collect call).

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410	Very toxic to aquatic life with long lasting effects.
Full text of H statements : see section 16		

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Warning
 Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
 Precautionary statements (GHS US) : P261 - Avoid breathing mist, vapors, spray.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves.
 P302+P352 - If on skin: Wash with plenty of water.

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P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Hazards associated with known or reasonably anticipated uses

None known

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : None known.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Imidacloprid	CAS-No.: 138261-41-3	20.76 – 22.49
Propylene glycol	CAS-No.: 57-55-6	3-7
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS-No.: 2634-33-5	0.1-1.0

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

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Move the affected person to fresh air. If not breathing, give artificial respiration. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison center or a doctor if you feel unwell.
First-aid measures after eye contact	: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist call a doctor.
First-aid measures after ingestion	: Immediately call a poison center or doctor/physician. If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms/effects, acute and delayed

Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: May cause slight irritation to the skin. May cause an allergic skin reaction.
Eyes	: May cause slight irritation.
Ingestion	: Harmful if swallowed.

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

Other medical advice or treatment	: If necessary seek medical advice.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Specific hazards arising from the chemical

Fire hazard : The product is not flammable.
Hazardous decomposition products in case of fire : None known.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not attempt to take action without suitable protective equipment.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin, eyes and clothing. Do not breathe dust. Do not touch or walk on the spilled product.

For non-emergency personnel

Emergency procedures : Keep unnecessary and unprotected personnel away from the spillage.

For emergency responders

Protective equipment : Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Methods and materials for containment and cleaning up

For containment : Dike and contain spill.
Methods for cleaning up : Absorb with an inert material and place in an appropriate waste disposal container.

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

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Always wash hands after handling the product. Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse. Refer to product label for additional information on use and handling.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep out of the reach of children. Store in dry, cool, well-ventilated area. Do not contaminate water, food, or feed by storage or disposal. Keep in original containers.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Imidacloprid (138261-41-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Imidacloprid
ACGIH® TLV® TWA	0.005 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Male repro system dam; Body weight; Repro eff; Neurodevelopmental impair. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Propylene glycol (57-55-6)	
USA - AIHA - Occupational Exposure Limits	
WEEL TWA	10 mg/m³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure adequate ventilation.

8.3. Individual protection measures, such as personal protective equipment

Materials for protective clothing:
Wear suitable protective clothing
Hand protection:
Chemically resistant gloves, made of barrier laminate, butyl rubber ≥14mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or viton ≥14 mils
Eye protection:
Use suitable eye protection
Skin and body protection:
To avoid contact with skin, wear long pants, long-sleeved shirt and shoes plus socks.
Respiratory protection:
In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: White.
Odor	: Solvent
Odor threshold	: No data available
pH	: 6 – 8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.06 – 1.09

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

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	: 104 mm ² /s
Explosion limits	: No data available
Particle characteristics	: Particle characteristics : Not applicable

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

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Keep away from oxidizers, strong acids and strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

MACHO 2.0 FL	
LD50 oral rat	≤ 2500 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 2.27 mg/l/4h
Imidacloprid (138261-41-3)	
LD50 oral rat	410 mg/kg
LD50 oral	379 mg/kg
LD50 dermal rat	> 5000 mg/kg
LD50 dermal	5000 mg/kg

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Imidacloprid (138261-41-3)	
LC50 Inhalation - Rat (Dust/Mist)	> 0.069 mg/l/4h No mortality at the highest concentration achievable.
Propylene glycol (57-55-6)	
LD50 oral rat	22000 mg/kg
LD50 dermal rat	20800 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)	
LD50 oral rat	490 mg/kg
LD50 dermal rat	> 2000 mg/kg
Skin corrosion/irritation	: Not classified pH: 6 – 8
Serious eye damage/irritation	: Not classified pH: 6 – 8
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Imidacloprid (138261-41-3)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0305 mg/l air Animal: rat, Guideline: OECD Guideline 412 (28-Day (Subacute) Inhalation Toxicity Study, Guideline: OECD Guideline 412 (28-Day (Subacute) Inhalation Toxicity Study, Guideline: EU Method B.8 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEL (dermal, rat/rabbit, 90 days)	1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study), Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0055 mg/l air Animal: rat, Guideline: OECD Guideline 412 (28-Day (Subacute) Inhalation Toxicity Study, Guideline: OECD Guideline 412 (28-Day (Subacute) Inhalation Toxicity Study, Guideline: EU Method B.8 (Subacute Inhalation Toxicity: 28-Day Study)
Propylene glycol (57-55-6)	
NOAEL (subchronic, oral, animal/male, 90 days)	443 mg/kg body weight Animal: cat, Animal sex: male
Aspiration hazard	: Not classified
MACHO 2.0 FL	
Viscosity, kinematic	104 mm²/s
Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: May cause slight irritation to the skin. May cause an allergic skin reaction.
Eyes	: May cause slight irritation.
Ingestion	: Harmful if swallowed.

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment.
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.

Imidacloprid (138261-41-3)	
LC50 - Fish [1]	161 mg/l
EC50 - Crustacea [1]	2.7 µg/l
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	1.8 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	9.02 mg/l
NOEC chronic crustacea	56 ng/l
NOEC chronic algae	100 mg/l

Propylene glycol (57-55-6)	
LC50 - Fish [1]	51400 mg/l Pimephales promelas (Fathead minnow)
EC50 - Crustacea [1]	43500 mg/l
LC50 - Fish [2]	51600 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 72h - Algae [1]	19300 mg/l Skeletonema costatum (marine diatom)
EC50 72h - Algae [2]	24200 mg/l Pseudokirchneriella subcapitata
EC50 96h - Algae [1]	19100 mg/l Skeletonema costatum (marine diatom)
EC50 96h - Algae [2]	19000 mg/l Pseudokirchneriella subcapitata

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)	
LC50 - Fish [1]	2.15 mg/l
EC50 - Crustacea [1]	2.9 mg/l EC50 48h - Daphnia magna [mg/l]

12.2. Persistence and degradability

MACHO 2.0 FL	
Persistence and degradability	No additional information available.
Imidacloprid (138261-41-3)	
Persistence and degradability	No additional information available.
Propylene glycol (57-55-6)	
Persistence and degradability	Readily biodegradable.
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)	
Persistence and degradability	Not rapidly degradable

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

12.3. Bioaccumulative potential

Imidacloprid (138261-41-3)	
Partition coefficient n-octanol/water (Log Pow)	0.57 Source: NLM
Partition coefficient n-octanol/water (Log Kow)	≤ 3
Propylene glycol (57-55-6)	
Partition coefficient n-octanol/water (Log Pow)	-0.92
Bioaccumulative potential	Low bioaccumulation potential.
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)	
BCF - Fish [1]	6.62
Partition coefficient n-octanol/water (Log Kow)	0.7

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Dispose of in accordance with applicable federal, state, and local regulations.
Product/Packaging disposal recommendations	: DO NOT contaminate water, food or feed by storage or disposal. Dispose of excess waste or pesticide by use according to label directions or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance. . CONTAINER DISPOSAL: Non-refillable containers (1, 2.5, 30 & 55 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. (non-refillable <5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. (non-refillable >5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. To clean the container before final disposal, empty the remaining contents from the 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. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT: Not regulated when shipped domestically by highway in non-buk containers as per 49 CFR 171.4

UN/ID no.: UN3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (Imidacloprid)

Hazard class: 9

Packing group: PG III

IMDG - Marine Pollutant IMDG - Marine Pollutant.

TDG: When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1

UN/ID no.: UN3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Imidacloprid)

Hazard class: 9

Packing group: PG III

Marine Pollutant: Y or N [List Ingredient(s) with %]: Marine pollutant.

ICAO

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s (Imidacloprid)

Hazard class 9

Packing group PG III

Description IMDG - Marine Pollutant

IATA

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Imidacloprid)

Hazard class 9

Packing group PG III

Description IMDG - Marine Pollutant

IMDG

UN/ID no. UN3082

Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Imidacloprid)

Hazard class 9

Packing group PG III

Environmental hazards IMDG - Marine Pollutant

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:		
Imidacloprid	CAS-No. 138261-41-3	20.76 – 22.49%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

FIFRA Labelling	
EPA Registration Number	42750-110

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

FIFRA Labelling	
This chemical is a pesticide product registered by the 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. Following is the hazard information as required on the pesticide label.	
FIFRA Signal Word	Caution
FIFRA Precautionary Statement	Keep out of reach of children. Hazards to Humans and Domestic Animals.
FIFRA Human Health Hazards	Harmful if swallowed or absorbed through skin.
FIFRA First Aid	Avoid contact with skin, eyes, or clothing.
FIFRA Environmental Hazards	Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops, plants or weeds. Do not apply this product or allow it to drift to blooming crops, plants or weeds if bees are foraging the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates. This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

15.2. International regulations

CANADA

Propylene glycol (57-55-6)
Listed on the Canadian DSL (Domestic Substances List)

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (2634-33-5)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Propylene glycol(57-55-6)	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16 Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Revision date : 9/5/2025
Issue date : 9/5/2025

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Full text of hazard classes and H-statements	
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

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.