

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300**

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

- 1.1 **PRODUCT IDENTIFIER:**  
**TRADE NAME:** MALICE® 2F INSECTICIDE
- 1.2 **RECOMMENDED USE:** GROUP 4A INSECTICIDE – FOR PEST MANAGEMENT AND SUPPRESSION OF LISTED INSECTS
- 1.3 **SUPPLIER DETAILS:**  
 LOVELAND PRODUCTS, INC.  
 P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565– **Product Information:** 1-888-574-2878 (LPI-CUST)  
**U.S. Coast Guard National Response Center:** 1-800-424-8802

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification according to 29 CFR 1910.1200**

Acute Toxicity – Oral	Category 4	H302
Acute Toxicity - Dermal	Category 4	H312
Specific Target Organ Toxicity (Repeated Exposure)	Category 2	H373
Aquatic Toxicity	Category 1	H400

**2.2 Label elements**



Signal word: WARNING  
 Hazard Statement: H302 – Harmful if swallowed  
 H312 – Harmful in contact with skin.  
 H373 – May cause damage to organs through prolonged or repeated exposure.  
 H400 – Very toxic to aquatic life.

Precautionary Statement: (Prevention): P260 – Do not breathe dust/fume/gas/mist/vapors/spray.  
 P264 – Wash hands and face thoroughly after handling.  
 P270 – Do not eat, drink or smoke when using this product.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement: (Response): P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330 – Rinse mouth.  
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
 P312 – Call a POISON CENTER or doctor/physician if you feel unwell.  
 P321 – Specific treatment (see Note To Physician on the product label).  
 P362 – Take off contaminated clothing and wash before reuse.  
 P314 – Get medical advice/attention if you feel unwell.

Precautionary Statement: (Storage): P405 – Store locked up.

Precautionary Statement: (Disposal): P501 – Dispose of contents/container to an approved waste disposal plant.

**2.3 Other hazards**  
None known



## SAFETY DATA SHEET

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### 3. COMPOSITION, INFORMATION ON INGREDIENTS

#### 3.1 Substances

#### 3.2 Mixtures

##### Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Classification	Concentration [%]
Imidacloprid	138261-41-3	Oral tox; 4; H302 Dermal tox. 4; H312	21.40
Other ingredients, includes Propylene Glycol	57-55-6	STOT-RE; 2; H373 Aquatic tox; 1; H400	<78.60 7.60 – 8.40

Ingredients not precisely identified are proprietary or non-hazardous.

### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

#### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed.

#### 4.3 Immediate Medical Attention and Special Treatment

Treatment: **NOTES TO PHYSICIAN:** No specific antidote is available. Treat symptomatically.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565**

Have the product label or container with you when calling a poison control center or doctor or going for treatment.

### 5. FIRE FIGHTING MEASURES

#### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO<sub>2</sub>), foam.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

#### 5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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**6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Personal Precautions: Avoid inhalation of mists and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

**6.2 ENVIRONMENTAL PRECAUTIONS**

Environmental Precautions: Do not apply directly to water, or to 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 pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging. This product is toxic to wildlife and highly toxic to aquatic invertebrates. This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP**

Methods for Clean-Up: Contain the spill at its source. Contain the spill to prevent spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in section 8. Cover entire spill with absorbing material and place into a compatible disposal container. Scrub the area with a hard water detergent. Pick up wash liquid with additional absorbent and place into a compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

**7. HANDLING AND STORAGE**

**7.1 PRECAUTIONS FOR SAFE HANDLING:**

Advice on Safe Handling: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**7.2 CONDITIONS FOR SAFE STORAGE:**

Requirements for Storage Areas and Containers: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Do not contaminate water, food or feed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 CONTROL PARAMETERS:**

**OCCUPATIONAL EXPOSURE LIMITS**

**U.S. Workplace Exposure Level (AIHA) WEELs (Workplace Environmental Exposure Levels)**

Components	Type	Value
Propylene Glycol	TWA	10 mg/m <sup>3</sup>

**U.S. Workplace Exposure Level (OSHA) PELs**

Components	Type	Value
No listings	TWA	

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Specimen
No listings		



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### 8.2 EXPOSURE CONTROLS:

#### Engineering Measures

When handlers use closed systems or enclosed cabs in a manner that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.  
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Shoes plus socks.  
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment approved by MSHA/NIOSH. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1 APPEARANCE : Liquid suspension  
ODOR: Odorless.  
ODOR THRESHOLD: No data available.  
COLOR: Off-white.  
pH: 7.62  
MELTING POINT / FREEZING POINT: Not applicable.  
BOILING POINT: No data available.  
FLASH POINT: > 211°F / > 99.4°C.  
FLAMMABILITY (solid, gas): Not flammable.  
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.  
VAPOR PRESSURE: No data available.  
SOLUBILITY: Dispersible.  
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.  
AUTO-IGNITION TEMPERATURE: No data available.  
DECOMPOSITION TEMPERATURE: No data available.  
VISCOSITY: 634.6 mPa @ 20°C  
SPECIFIC GRAVITY (Water = 1): 1.111 g/ml  
DENSITY: 9.27 lbs./gal / 1.11 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.  
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

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## 10. STABILITY AND REACTIVITY

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### 10.1 REACTIVITY

Stable

### 10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

### 10.4 CONDITIONS TO AVOID

Excessive heat and extreme cold.

### 10.5 INCOMPATIBLE MATERIALS

None known.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon, hydrogen chloride, hydrogen cyanide, and oxides of nitrogen.



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## 11 TOXICOLOGICAL INFORMATION

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### 11.3 LIKELY ROUTES OF EXPOSURE

Ingestion, Dermal, Inhalation, Eye Contact.

**LC<sub>50</sub> (rat):** > 0.63 mg/L (4H)

**LD<sub>50</sub> Oral (rat):** > 2,000 mg/kg.

**LD<sub>50</sub> Dermal (rabbit):** > 2,000 mg/kg

**Acute Toxicity Estimates:** No data available.

**Eye Irritation (rabbit):** Minimal eye irritant.

**Skin Irritation (rabbit):** Non-irritating.

**Inhalation:** No data available.

**Ingestion:** Harmful if swallowed.

**Specific Target Organ Toxicity:** Heart. Liver. Blood. Thyroid.

**Aspiration:** No data available.

**Skin Sensitization (guinea pig):** Not a sensitizer

**Carcinogenicity:** Not a carcinogen.

**Germ Cell Mutagenicity:** No data available.

**Interactive Effects:** None known.

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## 12 ECOLOGICAL INFORMATION

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### 12.3 ECOTOXICITY

The pesticide is toxic to aquatic invertebrates.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

#### Ecotoxicological Data

	<b>Species</b>	<b>Test Results</b>
Imidacloprid	Rainbow trout	211 mg/L – 96-hour LC <sub>50</sub>
	Daphnia magna	85 mg/L – 48-hour EC <sub>50</sub>
	Honey Bee	0.078 µ/bee 48-hour LD <sub>50</sub> (Contact) 0.0039 µ/bee 48-hour LD <sub>50</sub> (Oral)

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

### 12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: Very persistent.

### 12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Low potential for accumulation.

### 12.4 MOBILITY IN SOIL

High mobility.

### 12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

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## 13 DISPOSAL CONSIDERATIONS

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### 13.1 WASTE TREATMENT METHODS

**PESTICIDE DISPOSAL:** Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

**CONTAINER DISPOSAL: Plastic:** Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water, food or feed by storage or disposal.



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## 14 TRANSPORT INFORMATION

### 14.3 LAND TRANSPORT

**DOT Shipping Description:** NOT REGULATED BY DOT.

**U.S. Surface Freight Classification:** INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

## 15 REGULATORY INFORMATION

### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

#### NFPA & HMIS Hazard Ratings:

##### NFPA

2 Health	0 Least
1 Flammability	1 Slight
0 Instability	2 Moderate
	3 High
	4 Severe

##### HMIS

2 Health
1 Flammability
0 Reactivity
B PPE

#### SARA Hazard Notification/Reporting

<b>SARA Title III Hazard Category:</b>	Immediate <u>Y</u>	Fire <u>N</u>	Sudden Release of Pressure <u>N</u>
	Delayed <u>N</u>	Reactive <u>N</u>	

**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed.

**SARA, Title III, Section 313:** Not listed.

**RCRA Waste Code:** Not listed.

**CA Proposition 65:** Not listed.

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### CAUTION

Harmful if swallowed or absorbed through skin.  
Avoid contact with skin, eyes, or clothing.

## 16 OTHER INFORMATION

**SDS STATUS:** Format revised.

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

**EPA REG. NO.:** 34704-893

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