

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**COMPANY ADDRESS:** ALBAUGH, LLC  
Ankeny, IA 50021

**EMERGENCY TELEPHONE NUMBERS:**  
(800) 424-9300 (CHEMTREC, transportation and spills)

**PRODUCT NAME :** MACHO 4.0 FLOWABLE  
**CHEMICAL NAME :** Imidacloprid  
**PRODUCT USE :** Insecticide  
**PRODUCT CODE :** EPA Reg. No 42750-140

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Off-white viscous liquid

**HEALTH HAZARDS:** May be harmful if swallowed, absorbed through skin, or inhaled. Mildly irritating to the eyes and skin.

**PHYSICAL HAZARDS:** Can decompose at high temperatures releasing toxic gases.

**ENVIRONMENTAL HAZARDS:** Highly toxic to bees, birds and aquatic invertebrates. Keep out of water ways.

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Imidacloprid	40.7 %	138261-41-3
Inert Ingredients	59.3 %	N/A

**SECTION 4 - FIRST AID MEASURES**

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**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 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.

**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 INHALED:** Move person to fresh air, if person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

**NOTE TO PHYSICIAN:** No specific antidote, treat symptomatically.

**SECTION 5 - FIRE FIGHTING MEASURES**

## National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**FLASHPOINT:** >200°F / >100°C

**EXTINGUISHING MEDIA:** Use foam, dry chemical, or water spray.

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Minimize use of water to prevent environmental contamination

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full face piece.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILLS OR LEAKS:** Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

**LARGE SPILL:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Minimize use of water to prevent environmental contamination

**SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

**HANDLING:** Use only in a well-ventilated area. Minimize dust generation and accumulation.

**STORAGE:** Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated dry place away from heat. Store above 32 F.

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

EXPOSURE LIMITS (8 hour TWA, ppm): .

COMPONENT	OSHA PEL	ACIGH TLV
Imidacloprid	Not listed	Not Listed

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYE PROTECTION** - Safety goggles or glasses with side shields.

**CLOTHING** - Long-sleeved shirt and long pants, Chemical-resistant footwear plus socks

**GLOVES** - Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC), viton

**RESPIRATOR** – Not required when handled under normal conditions. When handling in enclosed areas with inadequate ventilation, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:**

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Off-white opaque liquid
<b>Odor:</b>	Moderate paint-like odor
<b>pH:</b>	5.9 – 7.9
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	>100°C
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	$5.2 \times 10^{-6}$ Pa @ 25°C (Imidacloprid)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.12 – 1.18 g/ml (9.35 – 9.85 lb/gl)*
<b>Solubility:</b>	No data
<b>Partition Coefficient:</b>	log Pow = 0.57 @ 25°C (Imidacloprid)
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	163 mPa/s @ 20°C; $1.37 \times 10^3$ mPa/s @ 40°C

\*Listed density is an approximate value and does not necessarily represent that of a specific batch.

### SECTION 10 - STABILITY AND REACTIVITY

**PRODUCT REACTIVITY:** Non-reactive

**CHEMICAL STABILITY:** Stable under normal conditions, however may decompose if heated.

**HAZARDOUS POLYMERIZATION:** Product will not undergo polymerization

**CONDITIONS TO AVOID:** Avoid temperatures above 100°F (38°C) for prolonged period of time. Strong exothermal reaction can occur above 390°F (200°C)

**INCOMPATIBLE MATERIALS:** None known

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, Nitrogen oxides.

### SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity data from similar formulation

**ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	- >1,100 mg/Kg
Dermal LD <sub>50</sub> (rat)	- >2,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	- >2.0 mg/L
Eye Irritation (rabbit)	- Mild irritant
Skin Irritation (rabbit)	- Slight irritant
Sensitization (guinea pig)	- Non-sensitizer

**CARCINOGEN STATUS:**

OSHA	- Not listed
NTP	- Not listed
IARC	- Not listed

**TERATOGENICITY:** No reproductive or teratogenic (birth defect) effects at normal exposure levels.

**MUTAGENICITY:** Little or no evidence of mutagenic effects during in vivo or in vitro studies.

### SECTION 12 - ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** This product is highly toxic to birds and aquatic invertebrates. For terrestrial uses, 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. Cover or incorporate spilled treated seeds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

**FATE:** Imidacloprid has a soil ½ life of 29 - 225 days depending on soil type and conditions. It is soluble in water and has the potential to leach in permeable soil types.

**FISH TOXICITY:** (Technical)

96 hour LC<sub>50</sub>, Rainbow trout - 211 mg/L  
96 hour LC<sub>50</sub>, Bluegill - unknown

**AVIAN TOXICITY:** (Technical)

Oral LC<sub>50</sub>, Bobwhite quail - 1,500 ppm  
Oral LC<sub>50</sub>, Mallard duck - 4,700 ppm

**BEE TOXICITY:**

Contact LD<sub>50</sub> - Highly toxic!

Refer to product label for specific directions on pollinator protection.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**WASTE:** Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

**CONTAINER:** Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

**SECTION 14 - TRANSPORT INFORMATION**

**SHIPPING DESCRIPTION:** Not regulated by DOT for ground transport

**TRANSPORT HAZARD CLASS:** N/A

**UN NUMBER:** N/A

**DOT PACKING GROUP:** N/A

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** Not listed

**SARA TITLE III STATUS:**

311/312 Hazard Categories – Immediate Health Hazard  
313 Toxic Chemicals – None known

**CALIFORNIA PROP 65:** Not listed

**TSCA:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

**REVISED DATE:** August, 2014  
**REFERENCE:** Revised for GHS compliance