

## Safety Data Sheet

Revision Date: October 17<sup>th</sup>, 2019

### 1. Identification

**1.1 Product Name:** SLUGGER 4.0

**1.2 Other Identification:**

Chemical Family: Metaldehyde

Formula: C<sub>8</sub>H<sub>16</sub>O<sub>4</sub>

EPA Registration Number: 71096-13

CAS Number: 108-62-3

Product: 4% Metaldehyde Active Ingredient

**1.3 Recommended Uses:**

Molluscicide

**1.4 Manufacturer:**

**OR-CAL Inc.**

29454 Meadowview Rd.

Junction City, OR 97448

541-689-4413 (Office)

541-689-5026 (FAX)

[www.orcalinc.com](http://www.orcalinc.com)

EPA Establishment No. 52251-OR-005

**1.5 Emergency Contact:**

CHEMTREC

1-800-424-9300 (US and Canada)

National Pesticide Information Center:

1-800-858-7378

American Association of Poison Control Centers:

1-800-222-1222

### 2. Hazards

**2.1 Hazard Classification:**

**Health:**

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 4
Acute Inhalation Toxicity	Category 4
Skin Corrosion/Irritation	Not irritating
Eye Damage/Irritation	Category 2A

**GHS Hazard Categories:**

1(Severe), 2/A (Serious),  
3(Moderate), 4(Slight),  
5(Minimal)

**Physical:** None known

**2.2 Signal Word(s):**

Caution (USEPA Stamped Label)

Warning (GHS)

**2.2.1 Hazard Statement(s):**

Harmful if swallowed

Harmful in contact with skin

Harmful if Inhaled

Causes serious eye irritation

Harmful to children and fatal to domestic  
animals when ingested

Aquatic toxicity

**2.2.2 Symbol(s):**



### 2.2.3 Precautionary Statement:

- Wash hands thoroughly after handling before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Do not eat, drink or smoke when using this product.
- Wear chemical resistant gloves, coveralls over long sleeved shirt and long pants, chemical resistant footwear, and protective eyewear when handling this product.
- Take off contaminated clothing and wash it before reuse. Change into clean clothing after using this product.
- Avoid breathing mist and use only outdoors or in a well-ventilated area.
- Have the product label or container with you when calling the poison control center or doctor, or going for treatment.
- This product can be fatal to domestic animals. If ingestion by pet is suspected, bring the product container or label with you to the veterinarian. Go immediately.

**2.3 Unclassified Hazard(s):** This pesticide is toxic to mollusks (e.g., clams, oysters, scallops, mussels). This pesticide is toxic to birds and mammals.

**2.4 Unknown Toxicity Ingredient:** None

## 3. Composition/Information on Ingredient

### 3.1 Product Composition:

Chemical Name	Formula	CAS No.	WT % A.I.	EINECS No.
Metaldehyde	C <sub>8</sub> H <sub>16</sub> O <sub>4</sub>	108-62-3	4%	203-600-2
Remaining Ingredients	Trade Secret	NA	96%	NA

## 4. First Aid Measures

### 4.1 Symptoms/Effects:

**Acute:** This product can be harmful to children and fatal to domestic animals when ingested. It is minimally irritating to the eyes, but may cause redness and burning. It is a mild skin irritant and may cause redness and/or chaffing. Inhalation of spray may cause mild irritation of nasal mucous membranes. Ingestion may cause excessive salivation, vomiting, nausea, acetonuria (odor of acetone on breath), convulsions, increased body temperature, depression of medullary respiratory and vasomotor control centers. May result in coma

and can be fatal. See product label for associated risks.

**Chronic:** Prolonged skin exposure may cause skin irritation.

### 4.2 Eyes:

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical advice.

### 4.3 Skin:

**If on skin:** Wash with plenty of water. Call a poison control center or doctor if you feel unwell. If skin irritation occurs, get medical advice. Take off contaminated clothing and wash before reuse.

### 4.4 Ingestion:

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Rinse mouth. 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.

### 4.5 Inhalation:

**If inhaled:** Remove person to fresh air and keep person comfortable for breathing. 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 if you feel unwell.

## 5. Firefighting Measures

**5.1 Flammable properties:** (See section 9 for additional properties)

Do not introduce heat to Slugger 4.0. Decomposition products of metaldehyde are paraldehyde and acetaldehyde, of which the toxicity is unknown. Acetaldehyde may be oxidized to acetic acid, which may catalyze the decomposition of metaldehyde.

### 5.2 Extinguishing Media:

5.2.1 Suitable Extinguishing Media:

Water, Carbon Dioxide, Dry Chemical

5.2.2 Unsuitable Extinguishing Media:

Not Applicable

### 5.3 Protection of Firefighters:

5.3.1 Specific Hazards Arising from the Chemical

Physical Hazards: Dangerous when exposed to heat or flame.

Chemical Hazards: Carbon Dioxide, carbon monoxide, paraldehyde and acetaldehyde are all known hazardous products of combustion.

### 5.3.2 Protective Equipment and Precautions for Firefighters:

Wear NIOSH approved self-contained breathing apparatus due to the possible presence of gases and the irritating nature of the product.

### 5.4 Additional Information:

National Fire Protection Association (NFPA) Ratings:

Health	2
Flammability	1
Reactivity	0
Special	N/A

*Hazard Rating: 4 (severe), 3 (serious), 2 (moderate), 1 (slight), 0 (minimal.)*

## 6. Accidental Release Measures

### 6.1 Personal Precautions:

Use Personal Protective Equipment specific in section 8. Remove contaminated clothing and wash affected skin areas with soap and water.

### 6.2 Environmental Precautions:

Keep spill out of open bodies of water and municipal sewers unless allowed under NPDES (National Pollutant Discharge Elimination System) permit. Do not release into the aquatic environment.

### 6.3 Methods of Containment

**Small Release:** Recover dry product if possible. Do not wash away. If wet, floors may become slippery. To remove residue, wet with water and absorb with absorbent material, package spillage and dispose of according to local, state, tribal, and federal regulations. Keep spillage from entering sewers and bodies of water. Follow PPE requirements in section 8.

**Large Release:** Same as above

### 6.4 Method for Cleanup:

**Small Release:** Sweep, Don't wash. Floors may become slippery when wet. Try not to generate dust while sweeping. To remove residue, wet with water, package spillage and dispose of according to local,

State, Tribal, and Federal laws. Follow PPE requirements in section 8.

**Large Release:** Same as above

## 7. Handling and Storage

### 7.1 Handling:

Avoid contact with eyes, skin or clothing. Fatal if swallowed. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. See section 8 for a complete list of PPE to wear when handling this product.

### 7.2 Storage:

Store Slugger 4.0 in its original container in a cool, locked place out of reach of children. Do not allow to freeze. Do not store near food or feed. This product can be fatal to children and dogs (and other domestic animals) if ingested. Dogs have been known to ingest metaldehyde after opening or tearing packaging.

## 8. Exposure Control/Personal Protection

### 8.1 Exposure Guidelines:

#### 8.1.1 OSHA (TWA, STEL):

Not listed as an air contaminant in 1910.1000 table Z-1

#### 8.1.2 ACGIH (TLV, STEL):

Not Available

### 8.2 Engineering Controls:

Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where commonly used.

### 8.3 Personal Protective Equipment (PPE):

#### 8.3.1 Eye/Face Protection:

Not necessary unless use generates nuisance dust then, wear goggles or face shield

#### 8.3.2 Skin Protection:

Long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material, chemical resistant footwear plus socks.

#### 8.3.3 Respiratory Protection:

Not necessary unless use generates nuisance dust then, wear dust mask or respirator.

#### 8.3.4 Hygiene Considerations:

Wash hands thoroughly after handling this product before eating, drinking, chewing

gum, using tobacco, or using the toilet.  
Change clothing immediately after finished  
handling this product.

## 9. Physical and Chemical Properties

- 9.1 Appearance:** Blue, Green or Brown Pellet
- 9.2 Odor:** Mint or Grain
- 9.3 Odor Threshold:** Not Available
- 9.4 pH:** 5.5 - 7
- 9.5 Melting Point/Freezing Point:** 246C (474.8 °F)/NA
- 9.6 Boiling Point:** Not available
- 9.7 Flash Point:** Not available
- 9.8 Evaporation Rate:** (Butyl Acetate=1) Not Available
- 9.9 Flammability:** Not applicable
- 9.10 Upper/Lower Flammability Limits:** Not Applicable
- 9.11 Vapor Pressure:** Not Available
- 9.12 Vapor Density:** (Air=1) Not Available
- 9.13 Average Relative Density:** 0.70 [40-46 Lb/ft<sup>3</sup>]
- 9.14 Water Solubility:** Insoluble
- 9.15 Partition Coefficient:** Not Applicable
- 9.16 Auto-ignition Temperature:** Not Applicable
- 9.17 Decomposition Temperature:** Not Applicable
- 9.18 Viscosity:** Not Applicable
- 9.19 Storage life:** At recommended conditions a minimum of 2 years.

## 10. Stability and Reactivity

- 10.1 Reactivity:** Products can be reactive with the introduction of oxidizing agents
- 10.2 Chemical Stability:** Stable
- 10.3 Possibility of Hazardous Reactions:** Hazardous Polymerization does not occur.
- 10.4 Conditions to Avoid:** Direct sunlight, excessive heat and freezing conditions.
- 10.5 Incompatible Materials:** Oxidizing agents
- 10.6 Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, paraldehyde and acetaldehyde.

## 11. Toxicological Information

- 11.1 Oral:** Data not available
- 11.2 Dermal:** Data not available
- 11.3 Inhalation:** Not Applicable
- 11.4 Eye:** Not irritating
- 11.5 Chronic/Carcinogenicity:** Data not available

- 11.6 Teratology:** Data not available
- 11.7 Reproduction:** Data not available
- 11.8 Mutagenicity:** Data not available

## 12. Ecological Information

- 12.1 Ecotoxicity:** Metaldehyde is used to protect a wide variety of plant types. No adverse ecological incidents have been reported with regard to metaldehyde and terrestrial plants. (USEPA RED).
- 12.2 Persistence & Degradability:** Metaldehyde is highly mobile in soils, and is generally stable to abiotic degradation mechanisms such as hydrolysis and photolysis (USEPA RED).
- 12.3 Bioaccumulative Potential:** This product is not bioaccumulative. Metaldehyde is primarily dissipated from soils through biodegradation under aerobic conditions, with a half-life of approximately 2 month (USEPA RED).
- 12.4 Mobility in Soil:** Metaldehyde is highly mobile in soils (USEPA RED).
- 12.5 Other Adverse Effects:** None known at this time.  
**Note:** All Ecological Information derived from United States. Environmental Protection Agency. Reregistration Eligibility Document for Metaldehyde. 27 July. 2006<[http://www.epa.gov/pesticides/reregistration/REDs/metaldehyde\\_red.pdf](http://www.epa.gov/pesticides/reregistration/REDs/metaldehyde_red.pdf)>

## 13. Disposal Considerations

- Completely empty bag, then dispose of in a sanitary landfill, by incineration or by burning, according to local, state and federal regulations. If burning stay out of smoke. Do not contaminate lakes, streams, oceans or other waters by discharge of waste effluents or equipment wash waters.
- Note:** Chemical additions or other alterations of this product may invalidate any disposal information in this SDS. Therefore, consult local waste regulators for proper disposal.

## 14. Transport Information

- 14.1 Basic Shipping Description:**
  - 14.1.1 UN Number: Not listed (Metaldehyde 1332)
  - 14.1.2 UN proper shipping name: Agriculture NOI-Insecticide or Fungicide
  - 14.1.3 Class: 60
  - 14.1.4 Packing Group: Not applicable
  - 14.1.5 Hazardous Substance: No

## 14.2 Additional Information:

14.2.1 Other DOT Requirements: Not regulated by DOT

14.2.1.1 Reportable Quantity: No

14.2.1.2 Placard(s): Not Applicable

14.2.1.3 Labels(s): Not Applicable

14.2.2 USCG Classification: Not Applicable

14.2.3 International Transportation:

14.2.3.1 IMO: Not Available

14.2.3.2 IATA: Not Available

14.2.3.3 TDG (Canada): Not Listed

14.2.3.4 ADR (Europe): Slugger 4.0 is not listed.

14.2.3.5 ADG (Australia): Slugger 4.0 is Not Listed

14.2.3.6 RR STCC: Not Listed

14.2.4 Emergency Response Guide: Guide No. 133 ID No. 1332 (for A.I.)

14.2.5 ERAP-Canada: Not Required

14.2.6 Special Precautions: Consult appropriate authorities before shipping this product internationally.

## 15. Regulatory Information

### 15.1 U.S. Federal Regulations:

15.1.1 OSHA: This product meets the criteria of the Federal OSHA Hazard Communication Standard 29 CFR §1910.1200

15.1.2 TSCA: Not Listed

15.1.3 CERCLA: Not Listed

15.1.4 SARA Title III:

15.1.4.1 Extremely Hazardous Substance (EHS): Not Listed

15.1.4.2 Section 312 (Tier II) Ratings: See SECTION 2. Hazard Identification-GHS Classification

15.1.4.3 Section 313 (FORM R): No

15.1.5 RCRA (Resource Conservation & Recovery Act) Status: Not Applicable

15.1.6 CAA (Hazardous Air Pollutant/HAP): Not Applicable

### 15.2 International Regulations:

15.2.1 Canada:

15.2.1.1 WHMIS: Pest Control Products not included as defined by the Pest Control Products Act.

15.2.1.2 DSL/NDSL: There is no control measure imposed on this substance.

### 15.3 State Regulations:

CA Proposition 65: Not Listed

## 16. Other Information

### 16.1 Use of Substance/Preparation:

16.1.1 Use: Slugger 4.0 is used as a molluscicide, or an agent for destroying mollusks. Its active ingredient metaldehyde, once ingested or absorbed by the slug's and/or snail's disrupts mucous production vital for locomotion, feeding and reproduction, resulting in death.

16.1.2 Preparation: This product is pelleted and prepared during manufacture. There is no preparation for the applicator.

### 16.2 Abbreviations:

ACGIH: American Conference of Gov. Industrial Hygienists

ADG: Australian Dangerous Goods

ADR: Carriage of Dangerous Goods by Road (Europe)

A.I.: Active Ingredient

CAA: Clean Air Act

CAS: Chemical Abstracts Service Registry Number

CERCLA: Comprehensive Environmental Response Compensation and Liability Act

DSL/NDSL: Domestic/Non-Domestic Substance List

ERAP: Emergency Response Assistance Plan (Canada)

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act

GHS: Globally Harmonized System of Classification

IATA: Integrated Approaches to Testing and Assessment

NA: Not Applicable

IMO: International Maritime Organization

OSHA: Occupational Safety and Health Administration

RCRA: Resource Conservation and Recovery Act

RED: Reregistration Eligibility Decision

STCC: Standard Transportation Commodity Code

STEL: Short Term Exposure Limit (15 minutes)

TDG: Transportation of Dangerous Goods (Canada)

TLV: Threshold Limit Values

TSCA: Toxic Substance Control Act Inventory

TWA: Time Weighted Average (8 hours)

USEPA: United States Environmental Protection Agency

WHMIS: Workplace Hazardous Materials information System

Revised October 17<sup>th</sup>, 2019 to include the instruction to consult tribal governing bodies when appropriate and to recognize them as equal to those of their federal counterparts. The non-mandatory environmental pictogram indicating aquatic toxicity was added to section 2. Clarification of federal regulations in section 15.1.4.2. Updated company logo and physical hazards.

The information compiled in this safety data sheet is believed to be accurate and is given in good faith, but it is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. No warranty or guarantee, expressed or implied, is made regarding performance, stability or otherwise, of this product, as the manner

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