

**MATERIAL SAFETY DATA SHEET**  
**Product# 20008, 20009, 20010, 20011& 20012**

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**KING BUG KILLER DUST**

**SECTION I - REGULATORY INFORMATION**

**TRADE NAME:** KING BUG KILLER DUST  
**WHMIS CLASSIFICATION:** EXEMPT  
**FORMULA NUMBER:** CO  
PCP No : 27817 registered 01 February 2005  
**CHEMICAL CLASS:** Botanical Insecticide.  
**PRODUCT USE:** Low concentration ready-to-use natural insecticide dust  
For outdoor household use.

**SECTION II - FIRST AID MEASURES**

**POISONING IS UNLIKELY.** However, if poisoning is suspected while working with this product, stop work, clean up, and immediately contact a doctor, the nearest hospital, or the nearest poison control centre. Give the complete product name, describe what happened and follow the advice given.

**EYES:** Flush eyes with clean water for 5 – 10 minutes holding eyelids apart and obtain medical attention if irritation occurs.

**SKIN:** Remove contaminated clothing and wash skin, hair and fingernails thoroughly. Obtain medical attention if irritation occurs. Wash contaminated clothing before reuse.

**INHALATION:** If any discomfort develops while working with this product, stop work, change clothes, clean up, and rest.

**IN MOUTH:** Rinse mouth with water. If a large amount was swallowed and the patient is fully conscious give patient 1 or 2 glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Apply artificial respiration if necessary. Call a doctor or poison control centre immediately.

**NOTE TO PHYSICIAN:**

This product contains Rotenone at a low concentration in a mineral dust. It would be difficult to swallow a significant amount. There is no specific antidote for this product if ingested. Treat according to symptoms.

**MEDICAL CONDITIONS LIKELY TO BE AGGRAVATED BY EXPOSURE:**

Persons with respiratory disorders should use extra care in handling this product.

**SECTION III - FIRE AND EXPLOSION HAZARD**

**FLASH POINT:** not applicable

**AUTOIGNITION TEMP.:** not available

**HAZARD LEVEL:** NONFLAMMABLE SOLID **EXTINGUISHING MEDIA:** All are compatible. Avoid excessive water.

**FLAMMABLE LIMITS IN AIR (% by volume):** LOWER: not applicable UPPER: not applicable

**EXTINGUISHING MEDIA:** All are compatible. Avoid excessive water.

**SPECIAL FIRE FIGHTING PROCEDURES:**

All personnel exposed to smoke or fumes must wear a pesticides respirator or self-contained breathing apparatus and full protective clothing. Evacuate all nonessential personnel and animals. Control discharges to the environment as quickly as possible. Prevent use of buildings, area and equipment until properly decontaminated.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Small amounts of toxic, flammable fumes are released by thermal decomposition in a fire. The product is not impact or shock sensitive. Avoid dispersion of dust to reduce dust or static explosion hazard

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:**

Thermal decomposition products may include oxides of carbon and nitrogen, and decomposed Rotenone products.

#### SECTION IV - REACTIVITY DATA

**Unstable conditions:** Decomposition of Rotenone occurs above 50°C.

**Incompatible substances:** Oxidising agents, strong acid or alkali.

**Conditions contributing to hazardous reactivity:** none

**Hazardous polymerization:** will not occur

**Corrosivity:** noncorrosive

#### SECTION V - PHYSICAL DATA

**APPEARANCE AND ODOUR:** Buff coloured fine powder with a root like odour.

**PHYSICAL STATE:** solid

**VISCOSITY:** not applicable

**SPECIFIC GRAVITY:** not available

**BULK DENSITY:** 1.27

**BOILING POINT:** not applicable.

**MELTING POINT:** decomposes

**pH:** not applicable

**ODOUR THRESHOLD:** not available

**VAPOUR DENSITY:** not applicable

**PER CENT VOLATILE:** nonvolatile

**VAPOUR PRESSURE:** non volatile

**EVAPORATION RATE:** nonvolatile

**SOLUBILITY IN WATER:** product is insoluble

**OCTANOL/WATER PARTITION COEFFICIENT:** not available

**HENRY'S LAW CONSTANT:** not available

#### SECTION VI - TOXICOLOGICAL PROPERTIES

**ACUTE TOXICITY - UNDILUTED** (immediate effects of a single overexposure)

The powder is difficult to swallow, but if the product is dumped directly on the face, and some is swallowed, irritation and numbness of the lips and mouth may occur, as well as intense eye irritation and inflammation. Excessive inhalation of dust can cause irritation and numbness around the mouth. The dust may cause irritation of the skin if not washed off. Some individuals may develop an allergy to Rotenone.

**TECHNICAL DETAILS WITH HAZARD LEVELS ACCORDING TO PCP ACT CLASSIFICATION:** XXXXXXXX

Oral LD50 Rat: >8 g/kg bw (estimated); inhalation LC50 Rat: not available

dermal LD50 Rat >4 g/kg bw (estimated) slightly toxic. Sensitization: Some individuals may become allergic to Rotenone.

**EXPOSURE LIMITS:** ACGIH TLV nuisance dust 5 mg/m<sup>3</sup>. OSHA air TWA 5 mg/m<sup>3</sup>.

**CHRONIC TOXICITY - ACTIVE INGREDIENT (ai) AND OTHER INGREDIENTS**

(The delayed or long term exposure effects)

Small amounts of Rotenone absorbed through the skin, or after swallowing, or after inhaling are readily degraded and eliminated by the body. There is no accumulation of residues in the body.

The health effects are indirectly caused by blocking the use of oxygen to generate energy. Nerves in the breathing centre are most affected, resulting in temporary paralysis of breathing muscles if the dose is high enough. At high dose levels, Rotenone also blocks cell division, temporarily halting growth and healing. It is not possible to obtain such high dose levels from this product. There is no long term or delayed effect on nerves and all effects disappear when exposure is stopped. Rotenone is not considered a carcinogen in humans. Its use by people as a poison to catch fish, results in frequent exposure over a wide range of dose levels with no apparent increase in cancer. At high dose levels in guinea pigs or dogs, Rotenone reduced survival of the offspring but did not cause birth defects (teratogenicity). No reproductive effects are expected for humans.

**OVER EXPOSURE EFFECTS:**

**ACUTE:** Irritation, tremors, numbness around the mouth, vomiting, weakness, feeble pulse, dilated pupils, temporary paralysis of the breathing muscles. Eye and skin contact cause irritation.

**CHRONIC:** No long term effects are expected from the normal handling or use of this product.

#### SECTION VII - HAZARDOUS INGREDIENTS

| INGREDIENT             | CONCENTRATION<br>(% w/w) | TOXICITY  |                 |
|------------------------|--------------------------|---|-----------------|
|                        |                          | ORAL/DERMAL LD50  | INHALATION LC50 |
| ROTENONE<br>CA 83-79-4 | 1                        | ORAL LD 50: Rat 132 - 1500 mg/kg<br>DERMAL LD 50: Very little uptake through the skin<br>INHAL. LC 50 : not available |                 |

### SECTION VIII - PRECAUTIONS

**PERSONAL PROTECTIVE EQUIPMENT:**

**RESPIRATOR:** Use an approved pesticides respirator if ventilation is not adequate, particularly in hot nonventilated spaces.

**EYES:** Wear safety glasses or goggles when direct exposure to product is likely.

**SKIN:** Wear full length work clothing, enclosed boots, and a hat. Wear neoprene gloves and an apron if direct contact with the product is likely.

**OTHER:** A fully enclosed worksuit with certified clean air supply may also be used to limit exposure in production work.

**WORKER PROTECTION:**

Follow normal good hygiene practices. For handling large quantities, ensure work areas have ventilation, containment, and procedures sufficient to keep Rotenone and dust below the TLV levels in air. Provide separate washing and eating facilities. Develop written safety and inspection procedures.

**ENVIRONMENTAL PROTECTION:**

Storage, work areas, equipment washing, and waste holding facilities must have adequate containment to prevent environmental contamination. Keep out of water supplies, ground water or open water. This product is toxic to fish and bees and, slightly toxic to wildlife.

**OTHER: KEEP OUT OF REACH OF CHILDREN, or animals.** Keep bystanders out of area where dust drift may occur during application.

### SECTION IX - HANDLING AND STORAGE

**SPILL PROCEDURE:**

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Wear proper protective clothing. Stop work and prevent spill from spreading. Vacuum or damp sweep spilled product with absorptive material such as sand, clay, or kitty litter. Collect spilled product and broken packages in a container for disposal and label appropriately. Wash area with detergent and water, and absorb the wash liquid for disposal. On soils, skim off the upper contaminated layer and collect for disposal. Spread the remainder out over a larger area. Dispose of spilt and contaminated material according to local regulations.

**WASTE DISPOSAL:**

Do not reuse containers. Rinse containers three times and dispose of in accord with local regulations.. Industrial/commercial waste may be handled at licensed facilities only, and may be disposed of by incineration or burial in an approved site. Waste shipments must be securely packed and properly labelled. Only licensed carriers may be used, and proper documents must accompany the shipment. This product is biodegradable. Contaminated water may be treated with ion exchange resin, eg Dow separan AP45 before release.

**HANDLING PROCEDURES:**

Work in a well ventilated area. Avoid inhalation of dust. Harmful if swallowed. Wear appropriate protective clothing and equipment when manufacturing. Do not eat, drink or smoke during handling. Remove protective clothing and equipment and wash hands and face prior to eating, drinking or comfort. If a spill occurs, stop work, and clean up spilt product immediately. At the end of the day or shift, remove protective equipment, and wash well (shower) and change into clean clothes.

**STORAGE:**

Store in original container only. Store in a well ventilated, cool, dry, secure area set aside for pesticides. Keep package tightly closed when not in use. Keep out of reach of unauthorized persons. Keep separate from other products especially herbicides to prevent cross contamination. Rotate stock. Keep storage area clean and orderly.

**SPECIAL SHIPPING INFORMATION:**

Ship and store away from food, feed, seed, cosmetics, and medical supplies.

**TRANSPORTATION OF DANGEROUS GOODS ACT CLASSIFICATION:**

**ROAD/RAIL**

**P.I.N**

**PROPER SHIPPING NAME: NOT REGULATED**

**SECTION X - PREPARATION INFORMATION**

The information and recommendations contained herein are based on information believed to be correct. However, no guarantee or warranty of any kind, expressed or implied is made with respect to the information provided herein.

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