

## Safety Data Sheet

According To Federal Register / Vol 77, No. 58 Monday March 26, 2012 / Rules and Regulations

Revision Date 12/15/2015 Date of Issue 12/15/2015

**Section 1: IDENTIFICATION****Product Identifier****Product Form:** Mixture**Product Name:** Greencure Fungicide**Chemical Name (Active Ingredient):** Potassium Bicarbonate**CAS No.:** 298-14-6**EPA Registration No.:** 70870-1**Formula:** KHCO<sub>3</sub>**Synonyms:** Carbonic acid, monopotassium salt**Intended Use of the Product**

Only to be used as follows: Contact foliar fungicide for garden crops, terrestrial and ornamental plants. greenhouse and nursery plants and turf.

**Name, Address and Telephone Number of the Responsible Party**

H &amp; I Agritech, Inc.

95 Brown Road, Box 1030

Ithaca, NY 14850

607-266-0181

[www.hiagritech.com](http://www.hiagritech.com)**Emergency Telephone Number**

For Medical Emergency: 1-800-858-7378(NPIC), For Chemical Emergency 1-800-424-9300(CHEMTREC)

**SECTION 2: HAZARDS IDENTIFICATION****Classification of the Substance or Mixture****Classification (GHS-US):** Not classified**Label Elements****GHS-US Labeling:** No labeling applicable**Other Hazards**

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Prolonged contact with dust can produce mechanical irritation.

**Unknown Acute Toxicity (GHS-US):** Not available**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****Substances****Product Name** :Greencure Fungicide

Chemical Name	Product Identifier	% (w/w)	Classification (GHS-US)
Potassium bicarbonate	(CAS No.)298-14-6	82.5%-87.5%	Not Classified
Sodium lauryl sulfate	(CAS No.) 151-21-3	1-15%	Not Classified
Sodium dioctyl sulfosuccinate	(CAS No.)577-11-7	1-15%	Not classified

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200]. A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

**SECTION 4: FIRST AID MEASURES****Description of First Aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center/ doctor / physician if you feel unwell.

**Skin Contact:** Brush off loose particles from skin. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Do not rub. Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical attention if a large amount is swallowed.

**Most Important Symptoms and Effects Both Acute and Delayed**

**General:** None expected under normal conditions of use.

**Inhalation:** Prolonged inhalation of dust may cause respiratory irritation.

**Skin Contact:** Skin contact with large amounts of dust may cause mechanical irritation.

**Eye Contact:** Contact may cause irritation due to mechanical irritation.

**Ingestion:** Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

**Chronic Symptoms:** None expected under normal conditions of use.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If exposed or concerned, get medical advice and attention.

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**SECTION 5: FIRE-FIGHTING MEASURES****Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** For surrounding fire. Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not flammable. Under fire conditions, hazardous fumes will be present.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>); Potassium oxides; Sodium oxides.

**Reference to Other Sections**

Refer to section 9 for flammability properties.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Do not breathe dust or fumes. Avoid skin and eye contact. Handle in accordance with good industrial hygiene and safety practice.

**For Non-Emergency Personnel**

**Protective Equipment:** Use appropriate personal protective equipment (PPE)

**Emergency Procedures:** Evacuate unnecessary personnel

**For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

Safety Data Sheet Dated 12/15/2015

protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

**Environmental Precautions**

Avoid release to the environment.

**Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain and collect as any solid.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Avoid generation of dust during clean-up of spills. Keep in suitable, closed containers for disposal. Contact competent authorities after a spill.

**Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection. For further information refer to Section 13.

**SECTION 7: HANDLING AND STORAGE****Precautions for Safe Handling**

**Additional Hazards When Processed:** When heated, material emits irritating fumes.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and again when leaving work.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical measures:** Ensure all national/local regulations are observed.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container tightly closed. Store away from incompatible materials.

**Only use is as follow:** Contact foliar fungicide for agricultural crops, terrestrial and ornamental plants, greenhouse and nursery crops and turf.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters**

For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL) or OSHA (PEL). Canadian provincial governments or the Mexican government.

**Particulates not otherwise classified (PNOC) (RR00072-6)**

<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> Respirable fraction 10 mg/m <sup>3</sup> Total Dust
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/ m <sup>3</sup> )	5 mg/m <sup>3</sup> Respirable fraction 15 mg/m <sup>3</sup> Total Dust

**Exposure Controls**

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Safety glasses. Dust formation: dust mask.

**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Chemical goggles or safety glasses.

**Skin and Body Protection:** Wash contaminated clothing before reuse.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Other Information:** When using, do not eat, drink or smoke.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties**

Physical State	: Solid
Appearance	: White, crystalline powder
Odor	: None
Odor Threshold	: Not Available
pH	: 8.2
Evaporation Rate	: not available
Melting Point	: 890° C (1634° F)
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20° C	: Not available
Relative Density	: Not available
Specific Gravity/density	: 62 lb/ft <sup>3</sup> +/-2
Specific Gravity	: Not available
Solubility	: 33.3 g/100ml @ 20° C (68° F)
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data - Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

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**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Chemical Stability:** Decomposes slowly on exposure to water (moisture)

**Possibility of Hazardous Reaction:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Avoid temperatures above 100° C (212 ° F)

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.

**Hazardous Decomposition Products:** None known. At high temperature may liberate toxic gases.

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**SECTION 11: TOXICOLOGICAL INFORMATION****Information on Toxicological Effects-Product**

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:**

**Greencure Fungicide:**

**LD50 Oral Rat** : 2825 mg/kg

**LD50 Dermal Rabbit** : >2000 mg/kg

**LC50 Inhalation Rat** : >4.8 mg/l/4h

**Skin Corrosion/Irritation:** Not classified

**pH:** 8.2

Safety Data Sheet Dated 12/15/2015

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**Serious Eye Damage/Irritation:** Not classified**pH:** 8.2**Respiratory or Skin Sensitization:** Not classified**Germ Cell Mutagenicity:** Not classified**Teratogenicity:** Not classified**Carcinogenicity:** Not classified**Specific Target Organ Toxicity (Repeated Exposure):** Not classified**Reproductive Toxicity:** Not classified**Specific Target Organ Toxicity (Single Exposure):** Not classified**Aspiration Hazard:** Not classified**Symptoms/Injuries After Inhalation:** Prolonged inhalation of dust may cause respiratory irritation.**Symptoms/Injuries After Skin Contact:** Skin contact with large amounts of dust may cause mechanical irritation.**Symptoms/Injuries After Ingestion:** Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.**Chronic Symptoms:** None expected under normal conditions of use.**Information on Toxicological Effects – Ingredient(s)****LD50 and LC50 Data:** Not available

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**SECTION 12: ECOLOGICAL INFORMATION****Toxicity****Greencure Fungicide:**

LC50 Fish 1 : 1500 mg/l Bluegill

EC50 Daphnia 1 : 1200 mg/l

LC50 Fish 2 : 1300 mg/l Rainbow Trout

**Persistence and Degradability****Greencure Fungicide:****Persistence and Degradability:** : Not established**Bioaccumulative Potential****Greencure Fungicide:****Bioaccumulative Potential** : Not established**Mobility In Soil:** Not available**Other Adverse Effects****Other Information:** Avoid release to the environment.

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**SECTION 13: DISPOSAL CONSIDERATIONS****Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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**SECTION 14: TRANSPORT INFORMATION****In Accordance with DOT:** Not regulated for transport**In Accordance with IMDG:** Not regulated for transport**In Accordance with IATA:** Not regulated for Transport**In Accordance with TDG:** Not regulated for Transport

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**SECTION 15: REGULATORY INFORMATION****Us Federal and International Regulations****Greencure Fungicide:**

**EPA FIFRA Pesticide Product Notice:** 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. The hazard information required on a pesticide label is reproduced below. The pesticide label also includes other information, including directions for use.

**EPA FIFRA Signal Word:** Caution

**EPA FIFRA Hazard Statements:** Harmful if swallowed. Causes moderate eye irritation.

**EPA FIFRA Precautionary Statements:** Keep out of the reach of children. HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**Monopotassium carbonate (298-14-6):**

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the IESC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on the NZIoC (New Zealand Inventory of Chemicals)

Listed on the PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the INSQ (Mexican National Inventory of Chemical Substances)

**US State Regulations**

Neither this product nor its chemical components appear on any US state lists.

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**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date** : 12/15/2015

**Other Information** : This document has been prepared in accordance with the SDS requirements Of the OSHA Hazard Communications Standard 29 CFR 1910.1200

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