

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Carb-O-Nator®
EPA Registration No. 70051-117
Product Type: Fungicide
Active Ingredient: Potassium Bicarbonate
CAS No.: 298-14-6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Plant disease control
Uses advised against: Any use not listed on the label

1.3. Details of the supplier of the safety data sheet

Name: Certis U.S.A., LLC
Address: 9145 Guilford Road, Suite 175
Columbia, Maryland 21046
U.S.A.
Phone Number: +01 (800) 255-3924
Website: <http://www.certisusa.com>

1.4. Emergency telephone number

Emergency number: +1 800 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Classification: Irritant
EPA Signal Word: Caution* (see section 15)
Hazard Statements: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Pictogram: None

Precautionary Statements: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

2.2 Other Hazards: None specified

SECTION 3: Composition/information on ingredients

3.1 Substances

Component	CAS#	% by weight
Potassium bicarbonate	298-14-6	85

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Eye Contact: Hold eye open and rinse slowly for 15-20 minutes.
Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center for treatment advice.

Skin Contact: Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Seek Medical Attention if irritation develops

Inhalation: Remove to an area free from risk of further exposure. Treat symptomatically.

Ingestion: Call poison control center or doctor immediately for treatment advice.
Have person drink several glasses of water.
Do not induce vomiting.
Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed: None specified

4.3. Indication of any immediate medical attention and special treatment needed None specified

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media: Non-combustible solid use extinguishing media for under lying cause of fire.

Unsuitable Extinguishing Media: None specified

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None currently known

5.3. Advice for firefighters

Protection of Firefighters: Fire fighters should wear full protective equipment, including bunker gear and a self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Proper ventilation, impermeable, chemical worker goggles, shoes plus socks long sleeved shirt and long pants. If dust concentrations exceed recommended permissible exposure limits, use NIOSH-approved dust respirator.

For emergency responders: Emergency workers other than firefighters same as above.

6.2. Environmental precautions

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

6.3. Methods and material for containment and cleaning up

Methods for Containment: None specified

Methods for Clean-Up: If uncontaminated, sweep up or collect and reuse product. If contaminated with other material, place in a recovery drum for proper disposal. This material must be disposed of according to Federal, State or local procedures under the conservation and recovery act.

Other Information:

6.4. Reference to other sections

Refer to Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not store with food, feed or other material consumed by humans or animals. Do not contaminate water supplies, lakes, streams or ponds. Protect against physical damage.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool dry place, separate from incompatible materials (acids).

7.3. Specific end use(s) Only those uses listed on the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): Not determined

ACGIH Threshold Limit Values: Not determined

Other Exposure Limits: Not determined

8.2. Exposure controls

Engineering Controls:

Personal Protective Equipment

Eye/Face Protection: None specified

Skin Protection Long sleeved shirt, long pants

Hand Protection: None specified

Body Protection: shoes plus socks

Respiratory Protection: None specified

Thermal Hazards: Thermal decomposition may emit carbon dioxide, oxides of sulfur and potassium oxide.

General Hygiene Considerations: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Environmental exposure controls:

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Gray white powder

Odour: odorless

Odour Threshold: Not applicable

pH: 8.3-8.8 (1% solutions)

Melting Point / Freezing Point: Not determined

Initial Boiling Point: Not applicable

Boiling Range: Not applicable

Flash Point: Non combustible

Evaporation Rate: Not applicable

Flammability (solid, gas):	Not flammable
Lower & Upper Flammability Limits:	Not applicable
Vapour Pressure:	Not applicable
Vapour Density:	Not applicable
Density:	0.76-0.86 g/cc
Solubility:	22% in water @ 23°C
Partition Coefficient (n-octanol/water):	Not determined
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	Not determined
Viscosity:	Not applicable
Explosive Properties:	None known
Oxidising Properties:	None known

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Reacts with acids to produce carbon dioxide
<u>10.2. Chemical stability</u>	Stable
<u>10.3. Possibility of hazardous reactions</u>	Hazardous if burned or combined with acids
<u>10.4. Conditions to avoid</u>	Keep out of reach of children. Avoid exposure to high humidity or other damp conditions. Avoid contamination from other pesticides or fertilizers.
<u>10.5. Incompatible materials</u>	Acids
<u>10.6. Hazardous decomposition products</u>	None currently known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD₅₀ (oral)	2,700 mg/kg, Rat
LD₅₀ (dermal)	> 5,000 mg/kg, Rat
LC₅₀ (inhalation)	Not available. Inhalation of dust may irritate the respiratory tract.
Skin corrosion / irritation:	Not a primary skin irritant. Irritation is possible with prolonged or repeated exposure.

Eye irritation: Causes moderate eye irritation
Respiratory or skin sensitization: Not available.

Other information on adverse health effects:

Pre-existing respiratory disease, including asthma and emphysema, may be aggravated.

Carcinogenicity

NTP Listed: Not listed.

IARC Listed: Not listed.

OSHA: Not listed.

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1. Toxicity

Environmental Hazards- 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 cleaning equipment or disposing of equipment washwaters.

12.2. Persistence and degradability Not available

12.3. Bioaccumulative potential Not available

12.4. Mobility in soil Not available

12.5. Other adverse effects Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal

Pesticide Storage: Store in original container in a cool dry place. Prevent exposure to moisture. Keep container tightly closed and out of the reach of children. Avoid contamination with other pesticides or fertilizers.

Pesticide Spill Procedure: In case of a spill, carefully sweep up the material to avoid generating dust. Store in a labeled container for disposal.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authority, by burning. If burned, stay out of smoke.

SECTION 14: Transportation information

<u>14.1. UN number</u>	<u>14.2. UN proper shipping name</u>
Not Regulated	Not Regulated
<u>14.3. Transport hazard class(es)</u>	<u>14.4. Packing group</u>
Not Regulated	Not Regulated
<u>14.5. Environmental hazards</u>	<u>14.6. Special precautions for user</u>
Not Regulated	Not Regulated
<u>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</u>	
Not Regulated	

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA: This product 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-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION- KEEP OUT OF REACH OF CHILDREN
Harmful if swallowed. Causes moderate eye irritation.

National Fire Protection Association Rating:
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)
Health: 2 Fire: 0 Reactivity: 0

S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health:	Y	Delayed (Chronic) Health:	N
Sudden release of pressure:	N	Fire:	N
Reactive:	N		

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

SDS Authoring Information:

Revision date: August 21, 2015
Date of Previous version: None. New Product
SDS Prepared by: Certis U.S.A. L.L.C.