

MATERIAL SAFETY DATA SHEET

Emergency Phone: Chemtrec 800-424-9300

Effective Date: April 14, 2011

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RootX

DESCRIPTION: A foaming herbicide for control of roots in pipelines.

EPA Reg. No. 68464-1

COMPANY IDENTIFICATION:

General Chemical Company

PO Box 7626

Salem, OR 97303

1-800-844-4974

2. HAZARD IDENTIFICATION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin.

ENVIRONMENTAL HAZARDS: This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground-water contamination. Do not use near a well or where drinking water is stored. Do not contaminate water when disposing of equipment, wash water or rinsate.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Ingredient</u> | <u>Chemical Name</u> | <u>CAS Number</u> | <u>Composition</u> | <u>TLV[‡]</u> |
|----------------------------|--------------------------|-------------------|--------------------|------------------------|
| Sulfamic Acid | N/A | 5329-14-6 | 40-50% | Not Established |
| Quartz, Crystalline Silica | N/A | 14808-60-7 | > 1.5% | 0.1 mg/m ³ |
| Dichlobenil | 2,6-dichlorobenzonitrile | 1194-65-6 | 0.55% | Not Established |

‡ The Threshold Limit Value listed is an inhalation limit established by the American Conference of Governmental Industrial Hygienists (ACGIH).

4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-858-7378 for emergency medical treatment information.

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.

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

IF SWALLOWED: Immediately call a poison control center or doctor. 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.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

5. FIRE-FIGHTING MEASURES

Flash point (Closed Cup): > 420°F

Auto Ignition Temperature: 980°F

Flammable Limits (LFL-UFL): Not Determined

Fire and Explosion Hazards: Thermal decomposition may release oxides of carbon, sulfur, and nitrogen and / or ammonia.

Means of Extinction: Water fog, foam, dry chemical or CO₂.

Fire Fighting Instructions: Keep upwind and isolate hazard area. Use any means necessary to fight surrounding fire. Dike and collect any runoff to prevent entry to drains or water bodies.

Firefighting Equipment: Self-contained breathing apparatus and full bunker gear.

NFPA Ratings: Health – 2 / Flammability – 1 / Instability – 1

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this MSDS. Control spill at the source and vacuum spill to avoid creating dust. Once all material is cleaned up and placed in disposal containers, seal the containers and arrange for disposal.

7. HANDLING AND STORAGE

Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash contaminated clothing before reuse.

Do not contaminate water, food, or feed by storage or disposal. Store in a dry place and avoid storage near food or feed products.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Applicators and other handlers, including mixers and loaders, must wear long-sleeved shirt, long pants, shoes plus socks and chemical-resistant gloves. Mixers and loaders must also wear a chemical-resistant apron. Wear a NIOSH approved personal respirator if dust from this product exceeds permissible exposure levels (Section 3).

General: 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. Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to light brown powder

Odor: Slight aromatic

pH: 2 – 3 (25% solution in water)

Density: 17.114 lbs/gal

Solubility: Disperses in water

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known.

CHEMICAL STABILITY: Stable under normal use and storage conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may release oxides of carbon, sulfur, and nitrogen and / or ammonia.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizing agents, nitric acid or chlorine.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Oral LD₅₀ (rat): > 5,000 mg/kg

ACUTE DERMAL TOXICITY

Dermal LD₅₀ (rat): > 2,000 mg/kg

ACUTE INHALATION TOXICITY

Inhalation LC₅₀ (rat): > 2 mg/L (4-hour)

EYE IRRITANT

Rabbit – Slightly to moderately irritating

SKIN IRRITATION

Rabbit – Slightly irritating

SENSITIZATION

Guinea Pig – Not a contact sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGENICITY:

ACGIH: Not listed

IARC: Not listed

NTP: Not listed

OSHA: Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

ADDITIONAL DATA: Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

For terrestrial uses, do not use near a well or where drinking water is stored. Do not apply directly to water or to areas where surface water is present or to inter tidal areas below the mean high water mark. Do not contaminate water when disposing of equipment, wash water or rinsate. This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground-water contamination.

The following data is for the active ingredient Dichlobenil:

AQUATIC TOXICITY

Various Fish Species (LC₅₀ 96-hr): 5 – 13 mg/L

Daphnia (LC₅₀ 48-hr): 6.2 mg/L

Algae (EC₅₀ 5-day): 2.0 – 2.7 mg/L

AVIAN TOXICITY

Bobwhite Quail (LD₅₀): 683 mg/kg

OTHER

Bees (LD₅₀ Contact): > 11 µg/bee

Worms (LD₅₀): > 1000 mg/kg substrate

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for additional container disposal instructions.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Not regulated by DOT.

SEVERE MARINE POLLUTANT: No

15. REGULATORY INFORMATION

FIFRA –

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III – Section 302 Extremely Hazardous Substances

Not Listed

SARA Title III – Section 311/312 Hazard Categories

Immediate (Acute), Delayed (Chronic)

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

None

CERCLA – Section 304 Reportable Ingredients

None

CALIFORNIA PROP 65 STATUS –

This product contains crystalline silica, a compound known to the state of California to cause cancer.

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

DISCLAIMER:

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER WILL NOT BE LIABLE FOR ANY LOSS, INJURY OR DAMAGES AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PURCHASERS AND/OR USERS OF THIS PRODUCT HEREBY WAIVE ANY STRICT LIABILITY. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR THE PARTICULAR PURPOSE, AND THERE ARE NO OTHER IMPLIED WARRANTIES, EXCEPT AS SPECIFICALLY SET FORTH ON THE PRODUCT LABEL. MANUFACTURER'S OBLIGATION ON ANY CLAIM IS LIMITED TO REPLACEMENT OF ANY DEFECTIVE PACKAGE OF ROOTX. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER WILL NOT BE LIABLE FOR ANY LOSS, INJURY OR DAMAGES TO PERSONS OR PROPERTY RESULTING FROM FAILURE OR IMPROPER USE OF THE PRODUCT, NOR WILL THE MANUFACTURER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND SUSTAINED BY THE PURCHASER OR USER OF THIS PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PURCHASERS AND/OR USERS OF THIS PRODUCT HEREBY WAIVE ANY STRICT LIABILITY OR PRODUCT LIABILITY CLAIM THEY MIGHT HAVE AGAINST THE MANUFACTURER AND/OR SELLER. SELLER AND MANUFACTURER ARE NOT LIABLE FOR ANY USE OF THIS PRODUCT NOT IN COMPLIANCE WITH THE DIRECTIONS ON THE PRODUCT LABEL.