

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Material name : Zep(R) Root Kill

EPA ID Number: 56576-1-40849

Material number : 00000000001047517

**Manufacturer or supplier's details**

Company : Zep Commercial Sales &amp; Service, a unit of Zep, Inc.

Address : 350 Joe Frank Harris Parkway, SE  
Emerson, GA 30137

Telephone : 404-352-1680

**Emergency telephone numbers**
**For SDS Information** : Compliance Services 1-877-428-9937

**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded

**For a Transportation  
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.  
In the District of Columbia 202-483-7616

**Recommended use of the chemical and restrictions on use**

Recommended use : Drain and Sewer Care

**SECTION 2. HAZARDS IDENTIFICATION**
**Emergency Overview**

Appearance	crystalline
Colour	blue
Odour	odourless

**GHS Classification**
Acute toxicity (Oral) : Category 3  
Skin irritation : Category 2  
Eye irritation : Category 2A
**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H301 Toxic if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
 P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.  
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P362 Take off contaminated clothing and wash before reuse.  
**Storage:**  
 P405 Store locked up.  
**Disposal:**  
 P501 Dispose of contents/container in accordance with local regulation.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

Chemical name	CAS-No.	Concentration [%]
COPPER SULFATE, PENTAHYDRATE	7758-99-8	>= 90 - <= 100

The exact percentages of disclosed substances are withheld as trade secrets.

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
 Get medical attention.  
 Show this safety data sheet to the doctor in attendance.  
 Symptoms of poisoning may appear several hours later.  
 Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
 Remove contaminated clothing and shoes.  
 Wash contaminated clothing before reuse.  
 If skin irritation persists, call a physician.

In case of eye contact : Remove contact lenses.  
 Protect unharmed eye.  
 Keep eye wide open while rinsing.  
 If eye irritation persists, consult a specialist.

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If swallowed : Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Effects are dependent on exposure (dose, concentration, contact time).  
Effects are immediate and delayed.  
Symptoms of overexposure may include disorientation; dizziness; and confusion. May progress to unconsciousness, paralysis, and convulsions.
- Symptoms may include irritation, redness, pain, and rash.  
Toxic if swallowed.  
Causes skin irritation.  
Causes serious eye irritation.  
Review section 2 of SDS to see all potential hazards.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

---

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray jet  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Sulphur oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Standard procedure for chemical fires.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Store and keep away from bases and alkalies.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : effective ventilation in all processing areas

**Personal protective equipment**

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

Eye protection	: Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles with pure water. Safety glasses
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: crystalline
Colour	: blue
Odour	: odourless
Odour Threshold	: not determined
pH	: No data available
Melting point/freezing point	: No data available
Boiling point	: 560 °C
Flash point	: No data available
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 2.284 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

Viscosity, kinematic : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Incompatible materials : Bases

Hazardous decomposition products : Copper oxides  
Sulphur oxides

**SECTION 11. TOXICOLOGICAL INFORMATION****Potential Health Effects**

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects are dependent on exposure (dose, concentration, contact time).  
Effects are immediate and delayed.  
Symptoms of overexposure may include disorientation; dizziness; and confusion. May progress to unconsciousness, paralysis, and convulsions.

Symptoms may include irritation, redness, pain, and rash.

**Carcinogenicity:**

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Acute toxicity**

No data available

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

**Skin corrosion/irritation**

**Product:**

Remarks: Irritating to skin.

**Serious eye damage/eye irritation**

**Product:**

Remarks: Irritating to eyes.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Aspiration toxicity**

No data available

**Further information**

**Product:**

Remarks: No data available

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

**Product:**

Partition coefficient: n-octanol/water : Remarks: No data available

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	: Not applicable

---

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

Waste from residues	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION**

Transportation Regulation: 49 CFR (USA): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
--

Transportation Regulation: IMDG (Vessel): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
---

Transportation Regulation: IATA (Cargo Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
--

Transportation Regulation: IATA (Passenger Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
--

Transportation Regulation: TDG (Canada):
--



**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
--

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

---

**SECTION 15. REGULATORY INFORMATION**

This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

**Pesticide Labeling Information Required Under U.S. FIFRA Regulations**

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**DANGER**

Corrosive - causes irreversible eye damage.

May be fatal if swallowed.

Harmful if absorbed through skin.

Observe label precautions.

This pesticide is toxic to fish and aquatic invertebrates.

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
COPPER SULFATE, PENTAHYDRATE	7758-99-8	10	10

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS**

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

**DSL** All components of this product are on the Canadian DSL  
**TSCA** On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

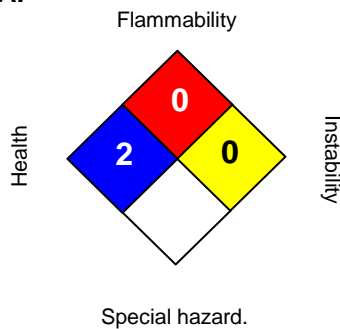
**Inventory Acronym and Validity Area Legend:**

TSCA (USA), DSL (Canada), NDSL (Canada)

**SECTION 16. OTHER INFORMATION**

**Further information**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>2*</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

**OSHA - GHS Label Information:**

Hazard pictograms



Signal word

Hazard statements

Precautionary statements

: **Danger:**  
 : Toxic if swallowed. Causes skin irritation. Causes serious eye irritation.  
 :  
**Prevention:** Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection.  
**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously

# SAFETY DATA SHEET



## BZ7939 ZC ROOT KILL ZROOT24 2# 4/CS OBS

Version 1.1

Revision Date 06/11/2018

Print Date 12/09/2018

with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container in accordance with local regulation.

Version:	1.1
Revision Date:	06/11/2018
Print Date:	12/09/2018

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.