



# Safety Data Sheet

Issue Date: 01-Jun-2013

Revision Date: 20-Mar-2014

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Rev-It-Up

### Other means of identification

**SDS #** CNI-025

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

**Recommended Use** Plant Nutrients.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

CNI AgriMinerals  
P.O. Box 3706  
Albany, GA 31706

#### **Emergency Telephone Number**

##### **Company Phone Number**

1-229-883-5538 (Business)

1-229-439-0842 (fax)

##### **Emergency Telephone (24 hr)**

Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear green liquid

**Physical State** Liquid

**Odor** Slight vinegar

### Classification

Carcinogenicity

Category 1B

### Signal Word

Danger

### Hazard Statements

May cause cancer



### Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown Acute Toxicity**

6.3% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
A proprietary blend of Micronutrient citrates, Nitrogen and Potassium in an aqueous solution	Proprietary	100
Urea Nitrogen	Proprietary	12.8 (Included in above blend)
Soluble Potash	Proprietary	3 (Included in above blend)
Zinc as derived from Zinc Citrate	Proprietary	2 (Included in above blend)
Potassium Nitrate	7757-79-1	2 (Included in above blend)
Manganese as derived from Manganese Citrate	Proprietary	1 (Included in above blend)
Ammonium Nitrate	6484-52-2	.2 (Included in above blend)
Iron as derived from Iron Citrate	Proprietary	.15 (Included in above blend)
Copper as derived from Copper Citrate)	Proprietary	.15 (Included in above blend)

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

<b>General Advice</b>	If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediately call a poison center or doctor/physician.
<b>Skin Contact</b>	Remove contaminated clothing. Wash skin with soap and water. Wash clothing before reuse. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Remove to fresh air. Seek medical attention if irritation develops or persists.
<b>Ingestion</b>	Have a conscious person drink several glasses of water or milk. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

**Most important symptoms and effects**

<b>Symptoms</b>	Direct contact with eyes may cause temporary irritation. Contact with skin may cause irritation. Ingestion may cause irritation of the gastrointestinal tract, cramps, vomiting or diarrhea. Vapor causes irritation to nasal and respiratory passages. Chronic ingestion may cause damage to heart, liver, and blood-forming tissues. Ingestion of large quantities may cause headache, mental impairment, dizziness, and may be fatal.
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**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically. Overexposure may aggravate pre-existing skin and lung disorders.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not release runoff from fire control methods to sewers or waterways.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

None.

**Hazardous Combustion Products** Metal oxide/oxides. Ammonia. Volatile organic compounds.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required.

**For Emergency Responders** Follow applicable OSHA regulations (29 CFR 1910.120).

**Environmental Precautions** Prevent runoff to sewers, streams, and other bodies of water. See Section 12 for additional Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so. For large spills, dike far ahead of spill for later disposal.

**Methods for Clean-Up** For small spills, absorb with sand, clay, or other inert absorbent. For large spills contained material may be salvaged for use if uncontaminated. Place in appropriate containers for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Use in accordance with product label instructions. Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc. Keep away from food, drink and animal feeding stuffs. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store in closed, properly labeled containers in a cool, ventilated area. Keep away from children, pets, domestic animals, and wildlife. Store in compatible containers. Store at 40-95°F. Never stack more than two pallets. Keep/store only in original container. Store locked up. Product may be corrosive to aluminum, mild steel and brass. Store in HDPE, fiberglass or stainless steel containers. Use only stainless steel, PVC or polypropylene fittings.

**Packaging Materials** Do not reuse container. Empty containers should be triple rinsed and use the rinsate in product tank. Reuse of empty drums or containers is not recommended. Dispose of all empty containers properly, in accordance with Federal, State and Local regulations. See Section 13: DISPOSAL CONSIDERATIONS.

**Incompatible Materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Manganese as derived from Manganese Citrate	-	(vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 500 mg/m <sup>3</sup> Mn TWA: 1 mg/m <sup>3</sup> Mn STEL: 3 mg/m <sup>3</sup> Mn
Iron as derived from Iron Citrate	TWA: 1 mg/m <sup>3</sup> Fe	(vacated) TWA: 1 mg/m <sup>3</sup> Fe	TWA: 1 mg/m <sup>3</sup> Fe
Copper as derived from Copper Citrate)	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	-	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist

### Appropriate engineering controls

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

**Skin and Body Protection** Wear chemically protective gloves to prevent skin contact. Wear protective clothing. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Respiratory Protection** Respiratory protection suitable for ammonia vapors may be needed. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. **WARNING!** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Slight vinegar
<b>Appearance</b>	Clear green liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Clear green		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not available	

<b>Flash Point</b>	Not available
<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Liquid-not applicable
<b>Upper Flammability Limits</b>	Not available
<b>Lower Flammability Limit</b>	Not available
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Specific Gravity</b>	1.28-1.30
<b>Water Solubility</b>	Completely soluble
<b>Solubility in other solvents</b>	Not determined
<b>Partition Coefficient</b>	Not determined
<b>Auto-ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Kinematic Viscosity</b>	Not determined
<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	Not determined
<b>Oxidizing Properties</b>	Not determined

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

### Conditions to Avoid

Keep out of reach of children. Avoid evaporating to dryness.

### Incompatible Materials

None known based on information supplied.

### Hazardous Decomposition Products

Carbon monoxide. Nitrate fumes.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Avoid contact with skin.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	Do not taste or swallow.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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A proprietary blend of Micronutrient citrates, Nitrogen and Postassium in an aqueous solution	> 90 mL/kg ( Rat )	-	-
Urea Nitrogen	= 8471 mg/kg ( Rat )	-	-
Potassium Nitrate 7757-79-1	= 3015 mg/kg ( Rat )	-	-
Ammonium Nitrate 6484-52-2	= 2217 mg/kg ( Rat )	-	> 88.8 mg/L ( Rat ) 4 h

### Information on physical, chemical and toxicological effects

#### Symptoms

Please see section 4 of this SDS for symptoms.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Potassium Nitrate 7757-79-1		Group 2A		X
Ammonium Nitrate 6484-52-2		Group 2A		X

*IARC (International Agency for Research on Cancer)*

*Group 2A - Probably Carcinogenic to Humans*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

*X - Present*

### Numerical measures of toxicity

Not determined

#### Unknown Acute Toxicity

6.3% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. May cause eutrophication.

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Urea Nitrogen		16200 - 18300: 96 h Poecilia reticulata mg/L LC50		10000: 24 h Daphnia magna Straus mg/L EC50 3910: 48 h Daphnia magna mg/L EC50 Static
Ammonium Nitrate 6484-52-2		65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static		

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

### Mobility

Chemical Name	Partition Coefficient
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Urea Nitrogen	-1.59
Ammonium Nitrate 6484-52-2	-3.1

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Potassium Nitrate 7757-79-1	Ignitable Reactive
Ammonium Nitrate 6484-52-2	Ignitable Reactive
Copper as derived from Copper Citrate)	Toxic

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**

Not determined

**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances***US Federal Regulations**

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Potassium Nitrate - 7757-79-1	7757-79-1	2 (Included in above blend)	1.0
Manganese as derived from Manganese Citrate -		1 (Included in above blend)	1.0
Ammonium Nitrate - 6484-52-2	6484-52-2	.2 (Included in above blend)	1.0
Copper as derived from Copper Citrate) -		.15 (Included in above blend)	1.0

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper as derived from Copper Citrate) (.15 (Included in above blend))		X		

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Soluble Potash	X		
Potassium Nitrate 7757-79-1	X	X	X
Manganese as derived from Manganese Citrate	X		X
Ammonium Nitrate 6484-52-2	X	X	X
Iron as derived from Iron Citrate			X
Copper as derived from Copper Citrate)	X		X



**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Instability</b> Not determined	<b>Special Hazards</b> Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Physical Hazards</b> Not determined	<b>Personal Protection</b> Not determined

**Issue Date:** 01-Jun-2013  
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**Revision Note:** New format

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**