

**Product Name: Vitalize**  
**Product ID#: 0770**

**Section I MANUFACTURER'S INFORMATION**

Manufacturer's Name And Address		Emergency Telephone Number:	509-545-9329
Northwest Agricultural Products		Number for Information:	509-545-9329
P.O. Box 3453		Date Revised:	March 2, 2010
821 S. Chestnut		Date Reviewed:	April 8, 2013
Pasco, WA 99302			

**Section II HAZARDOUS INGREDIENTS**

MATERIAL COMPONENT	%	EXPOSURE LIMITS IN AIR	HAZARD DATA
		ACGIH TLV      OSHA PEL	
Zinc sulfate* (CAS No. 7733-02-0 )	1.52	N/A              N/A	Health
Ferrous sulfate (CAS No. 7720-78-7)	0.14	1 mg/m3 1 (TWA)	Health
Manganese sulfate* (CAS No. 7785-87-7)	0.45	5 mg/m3 2 (c)	Health
Copper sulfate (CAS No. 7758-99-8)	0.40	1mg/m3              1mg/m3	Health

- Toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and re authorization Act of 1986 and 40 CFR Part 372.

Dot Class: Not Regulated

(1) As Fe                                      (2) As Mn                                      (3) Ceiling

**Section III PHYSICAL DATA**

Boiling Point , 760 MM HG	- 100 °	Melting Point	- N/A
Specific Gravity (H2 O=1)	- 1.22	Vapor Pressure	- Not known
Vapor Density (AIR=1)	- Not known	Solubility in H2 O, % by wt.	- Approx. 98%
% Volatile by and Odor	- Not known	Evaporation Rate ( Butyl Acetate=1)	- Not known
Appearance and Odor	- Dark Brown Liquid, Sweet		

**Section IV FIRE AND EXPLOSION DATA**

Flash Point	Auto Ignition	Temperature	N/A		
(Test Method)	N/A	Lower	N/A	Upper	N/A
Flammable limits in Air, % by vol.:					
Extinguishing Media	N/A				
Special Fire					
Fighting Procedures	N/A				
Unusual Fire and Explosion Hazard	N/A				

**Section V HEALTH AND HAZARD INFORMATION**

**SYMPTOMS OF OVEREXPOSURE**

**INHALATION:** May cause respiratory tract irritation, nausea, vomiting , weakness, fever, chills and loss of appetite. Chronic exposure may cause pneumonia, liver damage, and neuralgic damage.

**SKIN CONTACT:** May cause skin irritation.

**SKIN ABSORPTION:** None Known .

**EYE CONTACT:** May cause eye irritation .

**INGESTION:** Ingestion may result in nausea, vomiting, diarrhea, blood in vomits and stools, burning pain in mouth and throat, abdominal pain, lethargy, confusion , edema, leukocytosis, hyperglycemia, acidosis, shock, liver and kidney damage, and other gastrointestinal and neuralgic symptoms and damage. Ingestion by a child of more than 60 ml. ( 2 ounces ) or by an adult of more than 150 ml. ( 5 ounces ) may be fatal.

**EMERGENCY AND FIRST AID PROCEDURES**

**EYES:** Immediately flush with water for 15 minutes, lifting eyelids to flush thoroughly.

**SKIN :** Wash thoroughly with water.

**INHALATION :** Remove to fresh air. If breathing is difficult, contact a physician.

**INGESTION:** Drink large quantities of water or milk. Follow with milk of magnesia, beaten eggs or vegetable oil. Do not induce vomiting. Contact a physician.

**SUSPECTED CANCER AGENT?**

**NO:** This product's ingredients are not found in the list below.

**YES:**  Federal OSHA       NTP       IARC       Cal/ OSHA

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Hemochromatosis.

**NOTES TO A PHYSICIAN:** Contains citric acid ( 6.8 % ) ; pH 1.7. Ingestion of more than 0.5 ml of product per kg body weight may result in iron toxicity.

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**Section VI REACTIVITY DATA**

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STABILITY  Stable  Unstable

INCOMPATIBILITY (Material to avoid) Avoid contact with strong alkaline materials such as caustic potash (sodium hydroxide) . Mildly corrosive to common metals.

HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: Oxides of sulfur and zinc.

HAZARDOUS POLYMERIZATION: N/A

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**Section VII SPILL, LEAK AND DISPOSAL PROCEDURES**

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STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Neutralize with dilute alkaline solution and wash down sewer if federal , state, and local regulations permit.

NEUTRALIZING CHEMICALS: Baking soda ( sodium bicarbonate ) , soda , ash or lime.

WASTE DISPOSAL METHOD: Follow all applicable federal, state and local regulations.

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**Section VIII EQUIPMENT**

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VENTILATION REQUIREMENTS:

Use general or local exhaust ventilation to meet TLV requirements.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY: None required where appropriate ventilation conditions exist. If the TLV is exceeded, a self-contained breathing apparatus is advised.

EYE: Safety goggles.

GLOVES: Acid- resistant gloves such as rubber or neoprene.

OTHER CLOTHING AND EQUIPMENT: Coats, coveralls or aprons are recommended.

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**Section IX SPECIAL PRECAUTIONS**

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PRECAUTIONARY STATEMENTS:

Avoid contact with skin, eyes or clothing. Do not ingest. Avoid inhalation of mists.

OTHER HANDLING AND STORAGE REQUIREMENTS:

Keep lid tightly closed. Store in a dry area, above freezing and below 105° F, out of direct sunlight and way from strong alkalis. Keep out of reach of children.

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**SECTION X DOT INFORMATION AND DATE**

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DOT CLASSIFICATION: Not regulated DOT LABEL: None required

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Prepared By: David W. Bergevin  
Original Date: July 16, 2004

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