#### **MATERIAL SAFETY DATA SHEET**

- May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910. 1200. Standard must be consulted for specific requirements.

15 mg/m<sup>3</sup>

Health

**Product Name: Fortify** Product ID # 759

**SECTION I** MANUFACTURER'S INFORMATION

Name And Address:

Northwest Agricultural Products **Emergency Telephone Number:** 509-547-8234 509-547-8234 P.O. Box 3453 Number for Information: 821 S. Chestnut Date Prepared: March 1,2010 Pasco, WA 99302 Date Reviewed: April 8, 2013

**SECTION II HAZARDOUS INGREDIENTS** 

Material Components: % Exposure Limits In The Air Hazard Data ACGIH TLV **OSHA PEL** Ferrous Sulfate Heptahydrate cas# 7782-63-0 2.2% 1 mg/m( asFe)  $1 \text{ mg/m}^3$ Copper Sulfate Pentahydrate cas# 7758-98-7 1 mg/m<sup>3</sup> (as Cu)  $1 \text{ mg/m}^3$ Health Manganese Sulfate Monohydrate cas# 10034-96-5 .84 5 mg/m<sup>3</sup> (as Mn)  $5 \text{ mg/m}^3$ Health Sodium Tetraborate Pentahydrate cas# 12179-04-3 .05 5 mg/m<sup>3</sup> (as B) 10mg/m<sup>3</sup>

Zinc Sulfate Monohydrate cas#7446-19-7 .40 15 mg/m<sup>3</sup> (as Zn)

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

**SECTION III** PHYSICAL DATA

Boiling Point, 760mm Hg. 100°C Melting Point N/A Specific Gravity(H2o=1) Vapor Pressure 1.19 Not Known Vapor Density(AIR=1) Not Known Solubility in H2o,% by Wt. Approx 98% % Volatiles By Vol. Not Known **Evaporation Rate** (Butyl Acetate=1) Not Known

Appearance And Odor **Brown Liquid Sweet** 

**SECTION IV FIRE AND EXPLOSION DATA** 

Flash Point (Flash Method) - N/A Auto ignition Temperature - N/A

Flammable Limits in Air, % By Vol.: Lower - N/A Upper - N/A

Extinguishing Media - N/A Special Fire Fighting Procedures - N/A

Unusual Fire And Explosion Hazard - N.A

**SECTION V HEALTH 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 neurologic 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 vomitus and stools, burning pain in the mouth and throat, and abdominal pain, lethargy, confusion edema, leukocytosis, hyperglycemia, acidosis, shock, liver and kidney damage, and other gastrointestinal and neurologic symptoms and damage. Ingestion by a child of more than 60ml (2oz.) or by an adult of more than

150ml.(5oz.)may be fatal.

**Emergency And First Aid Procedures:** 

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

Wash thoroughly with water. Skin:

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?** <u>X</u> - No - Yes

This product's ingredients are not found in the lists below.

\_ IARC Federal OSHA NTP Cal/OSHA Medical Conditions Aggravated by Exposure: Hemochromatosis. Notes to Physician: Contains citric acid (6.8%);pH 1.7. Ingestion of more than 0.5ml. of product per kg. of body weight may result in iron toxicity.

# SECTION VI REACTIVITY DATA

Stability X Stable \_ Unstable

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

Hazardous Decomposition/Combustion Product - Oxides of sulfur and zinc.

Hazardous Polymerization: - N/A

# SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

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

### SECTION VIII

### SPECIAL PROTECTION INFORMATION

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.

## **SECTION IX**

#### SPECIAL PRECAUTIONS

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 away from strong alkalies. Keep out of reach of children.

PREPARED BY: Alan Wicks

ADDRESS: NAP CHEMICAL

821 S. CHESTNUT PASCO, WA.99301

DATE PREPARED: July 22, 2008

All information, recommendations and suggestions appearing herein concerning our products are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his/her own use of the product described herein. Since the actual use by others is beyond our control, we make no guarantee, expressed or implied, as to the effects of such use, the results to be obtained, or the safety and toxicity of the product; nor do we assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.