



Safety Data Sheet

Report Date 10-May-16

Page 1 of 5

1. Identification

Product Name : N-FIXX
Synonyms : None
Product Use : Fertilizer Additive for Nitrogen Stabilization
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Irritating to skin
Eye Irritation : Risk of serious damage to eyes
Acute Toxicity Oral : LD50 >2,823 mg/kg (rat) for N-(n-butyl)-thiophosphoric triamide
Acute Toxicity Dermal : LD50 >2,000 mg/kg (rat) for N-(n-butyl)-thiophosphoric triamide
Hazard Categories : Oral/Dermal/Inhalation Tox-5/5/5; Eye/Skin/Respiratory Irritation-1/2/3; Reproductive Toxicity-1B
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes serious eye damage
Causes skin irritation
May be harmful if inhaled
May cause respiratory irritation
May damage fertility or the unborn child

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
N-butyl-thiophosphoric triamide (NBPT), hydroxyphenolic acids, diols, and pyrrolidones.	Proprietary	100.00

4. First Aid Measures



Safety Data Sheet

Report Date 10-May-16

Page 2 of 5

- Eye** : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
- Skin** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- Ingestion** : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.
- Indication of Immediate Medical Attention and Special Treatment Needed** : Treat symptomatically. The effects might be delayed. If product is being mixed with pesticides and/or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling.

5. Fire Fighting Measures

- Extinguishing Media** : Use water fog, water spray, carbon dioxide or foam. Do not use water jet as this will spread fire.
- Specific Hazards Arising from the Chemical** : Fire may produce irritating, corrosive and/or toxic gases.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Evacuate personnel to safe area.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Protective Equipment** : Splashproof goggles or face shield, impervious (neoprene) gloves, impervious apron and footwear. Use suitable respiratory protection. Eyewash should be available in work area.
- Emergency Procedures** : Prevent further leakage or spillage if safe to do so.
- Methods and Materials for Containment and Cleanup** : Dike spilled material. Cover with an inert material, such as vermiculite, dry sand or earth. Collect for disposal. Following product recovery, flush area with water. Absorb wash water and place in containers with collected material.

7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Keep packages tightly closed and do not allow water to be introduced to the container contents.
- Conditions for Safe Storage** : Store in a temperature range of 32 Degrees F. and 100 Degrees F. Store in original container only. Do not store near heat or open flame. Exposure to below freezing temperatures for an extended period of time may result in the formation of gel and/or crystals. If this occurs, expose the product to ambient temperatures greater than 55 Degrees F. This will result in reconstitution of the product, with no degradation of the active ingredient.



Safety Data Sheet

Report Date 10-May-16

Page 3 of 5

8. Exposure Controls / Personal Protection

TLV/PEL : No exposure limits noted for ingredients.

Appropriate Engineering Controls : Provide adequate general and local exhaust ventilation.

Personal Protective Equipment : Splashproof goggles or face shield, impervious (neoprene) gloves, impervious apron and footwear. Use suitable respiratory protection. Eyewash should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Clear, dark blue liquid; mild/slight ammonia odor.

Flash Point, °F : >200 Degrees F.

Boiling Point, °F : Not applicable

Melting Point(Freezing point), °C : Not applicable

Vapor Pressure, mm Hg @ 20 °C : <0.32 mbar @ 20 Degrees C.

Vapor Density : Not available

Solubility in Water : Not available

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.050-1.070

Evaporation Rate(Butyl Acetate = 1) : <1

Octanol/Water Partition Coefficient : Log Pow=0.444

pH : Not applicable, non-aqueous

Flammable Limits (approximate volume % in air) : Not determined

Auto-ignition Temperature : Not determined

Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found

Chemical Stability : Stable

Hazardous Decomposition Products : Emits oxides of carbon, nitrogen and sulfur.

Hazardous Polymerization : Will not occur

Conditions to Avoid : Extremely high temperatures

Incompatible Materials : Aqueous acids (decomposes), strong oxidizing and reducing agents.



Safety Data Sheet

Report Date 10-May-16

Page 4 of 5

11. Toxicological Information

- Acute Toxicity (Oral LD50)** : >2,000 mg/kg (rat). May be harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : >2,000 mg/kg (rat). May be harmful in contact with skin.
- Acute Toxicity Inhalation LC50** : No LC50 available. May be harmful if inhaled.
- Likely Routes of Exposure** : Skin absorption, inhalation.
- Skin Irritation** : Causes skin irritation.
- Eye Irritation** : Causes serious eye damage.
- Skin Sensitization** : Not classified as a sensitizer.
- Carcinogenic** : Not listed by OSHA, IARC or NTP.
- Chronic Effects** : Prolonged exposure may cause chronic effects. Symptoms may be delayed.
- Other Hazards** : Avoid contact during pregnancy/while nursing. CA Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

12. Ecological Information

- Ecotoxicity** : This product is not classified as environmentally hazardous. However, large or frequent spills can have a harmful or damaging effect on the environment.
- Persistence and Degradability** : The product is not readily biodegradable.
- Bioaccumulative Potential** : Octanol/Water coefficient: Log Pow=0.444
- Mobility in Soil** : The product is soluble in water.
- Other Adverse Effects** : No information found.

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : Not regulated by DOT, IATA or IMDG.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : No information found
- Transport in Bulk** : No information found
- Special Precautions for Transportation** : None
- Freight Classification** : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)



Safety Data Sheet

Report Date **10-May-16**

Page 5 of 5

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 10-May-2016