



# Safety Data Sheet

**Issue Date:** 06-06-2014

**Revision Date:** NEW

**Version 2**

## 1: IDENTIFICATION

**Product Identifier:**

Product Name: **Winter-Treat**

**Other Means of Identification:**

Part Number: 4390-08, 4390-32

**Recommended Use of the Chemical and Restrictions on Use:**

Closed system treatment

**Details of the Author of the Safety Data Sheet:**

Supplier Address: NU-CALGON WHOLESALER,  
INC. 2611 Schuetz Road  
St. Louis, MO 63043

**Emergency Telephone Numbers:**

Company Phone Number: (314) 469-7000  
(800) 554-5499

Emergency Telephone  
Number (24 hr): CHEMTREC 800-424-9300

## 2: HAZARDS IDENTIFICATION

**Hazard Classification:** Acute toxicity (oral), category 3  
Acute toxicity (dermal), category 4  
Serious eye damage, category 1

**Signal Word:** Danger

**Hazard Statements:** H301: Toxic if swallowed.  
H312: Harmful in contact with skin.  
H315: Causes skin irritation.  
H318: Causes serious eye damage.  
H335: May cause respiratory irritation.

**Pictograms of Related Hazards:**



**Precautionary Statements:**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P330 - Rinse mouth.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P304 + P340- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P311 - Call a POISON CENTER or doctor/physician

P303 +P361+ P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P310: Immediately call a POISON CENTER or doctor/physician.

**Description of Other Hazards:** None

**3: COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name                          | CAS #      | Weight % |
|--|------------|----------|
| Sodium nitrite                         | 7632-00-0  | 1-10     |
| Tetrapotassium pyrophosphate (TKPP)    | 7320-34-5  | 1-10     |
| 1H-Benzotriazole, potassium salt (1:1) | 51126-65-9 | 1-10     |
| Potassium hydroxide                    | 1310-58-3  | <1       |

**4: FIRST-AID MEASURES**

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids to ensure complete rinsing. Remove contact lenses, if present, after 5 minutes of flushing, and then continue flushing. Get medical attention immediately.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing and thoroughly clean shoes before reuse.

**Inhalation:** If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** If swallowed, do NOT induce vomiting. If victim is conscious and alert, rinse out mouth with water and give large quantities of water to drink. Get medical attention immediately. Never give anything by mouth to an unconscious person.

**5: FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:** Use extinguishing media appropriate for the surrounding fire.

**Unsuitable Extinguishing Media:** Not available

**Protective Equipment and Precautions for Firefighters:** Firefighters should wear full protective clothing including a self-contained breathing apparatus.

**Specific Hazards Arising from this Chemical:** Product emits toxic gases under fire conditions. This product can react with amphoteric metals, such as aluminum, to produce hydrogen gas, which is flammable and/or explosive if ignited.

**Hazardous Decomposition Products:** Thermal decomposition or combustion may produce oxides of potassium, oxides of sodium, oxides of phosphorus, oxides of nitrogen oxides of carbon, and oxides of sulfur.

**6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Ventilate the spill area. Keep unnecessary and unprotected people away from the spill site. Stop or reduce any leaks if it is safe to do so. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Notify appropriate government, occupational health and safety, and environmental authorities.

**Methods for Clean-up:**

**Small spills:** Soak up spill with an inert, non-combustible absorbent material (e.g. vermiculite, sand, or earth). Place residues in a suitable, covered, properly labeled container. Wash the affected area.

**Large spills:** Contain liquid using an inert, non-combustible absorbent material (e.g. vermiculite, sand, or earth), by digging trenches, or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material.

**Disposal:** Dispose of material in compliance with federal, state, and local regulations.

**Environmental Precautions:** Prevent entry into lakes, ponds, streams, waterways, or public water supplies.

**7: HANDLING AND STORAGE****Advice on Safe Handling:**

Avoid contact with skin, eyes, and clothing.

Avoid breathing vapors or mist.

Use with adequate ventilation.

Wash thoroughly after handling.

Do not take internally.

Keep containers closed when not in use.  
 Ensure that containers are properly labeled.  
 Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid).  
 Observe all warnings and precautions listed for this product.  
 Prevent contact with clothing and other combustible materials.  
 Have emergency equipment (for fires, spills, leaks, etc.) readily available.

### Storage Conditions:

Store in a cool, dry, well-ventilated area away from incompatible materials.  
 Protect against the physical damage of containers.  
 Do not store near combustible materials.  
 Store above 50 °F (10 °C), otherwise precipitation and/or freezing of the product may occur.  
 If this does happen, the product can be reconstituted by placing it in a warm room and gently mixing it.

## 8: EXPOSURE CONTROL / PERSONAL PROTECTION

| Chemical Name                          | NIOSH            | OSHA PEL                     | ACGIH TLV                    |
|--|------------------|------------------------------|------------------------------|
| Sodium nitrite                         | None established | None established             | None established             |
| Tetrapotassium pyrophosphate (TKPP)    | None established | None established             | None established             |
| 1H-Benzotriazole, potassium salt (1:1) | None established | None established             | None established             |
| Potassium hydroxide                    | None established | Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> |

**Eye/Face Protection:** Chemical splash goggles and face shield.

**Skin and Body Protection:** Chemical resistant gloves and impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory Protection:** If airborne concentrations exceed published exposure limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).



**Engineering Controls:** Use local and/or general exhaust ventilation to maintain airborne concentrations below irritating levels or airborne exposure limits, whichever is lower. Local exhaust is generally preferred because it can control the emission of the contaminant at its source, thus preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices, the most recent edition", for details.

**General Hygiene Considerations:** Use good industrial hygiene practices in handling this material. When using, do not eat or drink. Wash hands before breaks and immediately after handling the product. An eye wash station and safety shower should be accessible in the immediate area of use. Protective equipment should be cleaned thoroughly after each use.

## 9: PHYSICAL AND CHEMICAL PROPERTIES

**pH:** 12.0-13.0

**Specific Gravity:** 1.040-1.120 g/mL

**Flash Point:** Not available

**Solubility in Water:** Complete

**Boiling Point:** Not available

**Freezing Point:** 49 °F (9.4 °C)

**Vapor Pressure:** Not available

**Vapor Density:** Not available

**Appearance and Odor:** Clear, purple liquid with no odor

## 10: STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** Prevent contact with clothing and other combustible materials. Protect from low temperatures.

**Incompatibilities:** The product component, sodium nitrite, can cause a hazardous reaction with acids, ammonium salts, amines, activated carbon, cyanides, thiocyanates, thiosulfates, reducing agents, and certain combustibles. When sodium nitrite reacts with acid, highly toxic nitrogen oxides are released.

**Hazardous Decomposition Products:** Thermal decomposition or combustion may produce oxides of potassium, oxides of sodium, oxides of phosphorus, oxides of nitrogen oxides of carbon, and oxides of sulfur.

## 11: TOXICOLOGICAL INFORMATION

**Likely Routes Of Exposure:** Eye contact, skin contact, ingestion, and inhalation of product vapors or mists

**Acute Toxicity:**

| Test Material                       | Oral LD50 (rat) | Dermal LD50 (rabbit) | Inhalation LC50 (rat)       |
|-------------------------------------|-----------------|----------------------|-----------------------------|
| Sodium nitrite                      | 180 mg/Kg       | Not available        | 5.5 mg/m <sup>3</sup> /4H   |
| Tetrapotassium pyrophosphate (TKPP) | 2,440 mg/Kg     | >2,000 mg/Kg         | Not available               |
| 1,2,3-Benzotriazole                 | 560 mg/Kg       | >2,000 mg/Kg         | 1,910 mg/m <sup>3</sup> /3H |
| Potassium hydroxide                 | 273 mg/Kg       | 1,260 mg/Kg          | Not available               |

**Acute Symptoms and Effects:**

**Eye:** Contact causes severe eye irritation and possibly burns. Tearing, redness, pain, swelling, impaired vision, and/or tissue damage may occur. Greater exposures may result in permanent damage.

**Skin:** Contact with skin causes irritation. Soreness, redness, and burns may result. There may be a delay between the time of exposure and when the sense of irritation begins. Sodium nitrite can be absorbed through damaged skin in amounts that may produce systemic toxicity similar to that produced by ingestion, if the area of exposure and amount absorbed is large.

**Ingestion:** Ingestion of this product may cause irritation or burns of the mucous membranes of the mouth, throat, esophagus and stomach. This product would be considered to be toxic by ingestion because as little as 1 gram of the product component, sodium nitrite, may be fatal to humans. (One gram of sodium nitrite equates to about 15 g product.) Ingestion of sodium nitrite may cause nausea, vomiting, headaches, cyanosis (bluish skin resulting from reduced oxygen-carrying capacity of the blood due to methemoglobin production), weakness, shortness of breath, a marked fall in blood pressure, collapse, convulsions, coma, and possibly death. Nitrites have been shown to convert in the stomachs of lab animals to potentially carcinogenic nitrosamines. Ingestion of the large amounts of the product component TKPP can cause blood chemistry effects (hypocalcemia and hyperkalemia).

**Inhalation:** Inhalation of product mist may cause respiratory tract irritation. Inhalation of large amounts of product may cause systemic effects, as nitrites are readily absorbed by lung tissue.

**Chronic:** No applicable information was found concerning any potential health effects resulting from subchronic or chronic exposure to the product. Information on the product components follows.

Following repeated exposure (13 weeks) of rats to the product component, tetrapotassium pyrophosphate, in their food, the following effects were observed at high dose levels: kidney damage with changes in body weight, food consumption, clinical parameters, and organ weights.

This product contains sodium nitrite. Repeated doses of nitrites cause a fall in blood pressure, rapid pulse, headache, and visual disturbances. Nitrites have been implicated in an increased incidence of cancer. They may react with organic amines in the body to form

carcinogenic nitrosamines. Repeated or prolonged exposure to nitrites may cause methemoglobinemia (decreased oxygen-carrying capacity of the blood). Pregnant women should minimize exposure to nitrites since the developing fetus may be adversely affected by the nitrite-induced methemoglobinemia.

Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported. Chronic inhalation of alkaline solutions may result in irritation of or damage to the tissues of the respiratory system, and an increased susceptibility to respiratory illness.

**Reproductive Effects:** Not established

**Teratogenicity:** Not established

**Mutagenicity:** Not established

**Embryotoxicity:** Not established

**Sensitization to Product:** Not established

**Synergistic Products:** Not established

**Carcinogenicity:** Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

The toxicological properties of this material have not been fully investigated.

## 12: ECOLOGICAL INFORMATION

### Aquatic Toxicity:

| Test Material                       | Result   |
|-------------------------------------|--|
| Sodium nitrite                      | 24 hr NOEC (Minnow): 17.1 mg/L<br>48 hr LC50 (Mosquito fish): 7.5 mg/L<br>96 hr LC50 (Rainbow trout): <1 mg/L (flow through)   |
| Tetrapotassium pyrophosphate (TKPP) | 48 hr LC50 (Daphnia magna): >100 mg/L<br>96 hr LC50 (Rainbow trout): >100 mg/L   |
| 1,2,3-Benzotriazole, sodium salt    | 48 hr LC50 (Daphnia magna): 141.6 mg/L<br>96 hr TIm (Minnow): 28 mg/L<br>96 hr TIm (Bluegill sunfish): 28 mg/L<br>96 hr LC50 (Trout): 39 mg/L<br>96 hr EC50 (Algae): 15.4 mg/L |
| Potassium hydroxide                 | 48 hr EC50 (Water flea): 60 mg/L<br>96 hr LC50 (Fathead minnow): 179 mg/L<br>24 hr LD50 (Bluegill sunfish): 56 mg/L<br>24 hr LD50 (Rainbow trout): 50 mg/L                     |

### Persistence and Degradability:

No data available

### Bioaccumulative Potential:

No data available

**Mobility in Soil:**

No data available

**Other Adverse Effects:**

No data available

**13: DISPOSAL INFORMATION****Disposal:** Dispose of in accordance with local, state, and federal regulations.**14: TRANSPORT INFORMATION**

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

**US Department of Transportation (DOT):**

UN Number: UN 1760

Proper Shipping Name: Corrosive liquid, n.o.s.  
(contains potassium hydroxide)

Primary Hazard Class/Division: 8

Packing Group: III

Label: Corrosive

**International Maritime Dangerous Goods Code (IMDG):**

UN Number: UN 1760

Proper Shipping Name: Corrosive liquid, n.o.s.  
(contains potassium hydroxide)

Primary Hazard Class/Division: 8

Packing Group: III

Label: Corrosive

**15: REGULATORY INFORMATION****US Federal Regulations:**

OSHA Hazard Communication Status: Hazardous

TSCA: The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

**CERCLA: EPA Hazardous Substances (40 CFR 302):**

| <u>Chemical Name</u> | <u>CERCLA Reportable Quantity (RQ)</u> |
|----------------------|--|
| Sodium nitrite       | 100 lb                                 |
| Potassium hydroxide  | 1,000 lb                               |
| Product              | 1,475 lb                               |

(Notify the EPA of spills exceeding this amount.)



**SARA TITLE III (Sections 302, 311, 312, and 313):**

**Section 302 Extremely Hazardous Substances (40 CFR 355):**

|                      |             |           |            |
|----------------------|-------------|-----------|------------|
| <u>Chemical Name</u> | <u>CAS#</u> | <u>RQ</u> | <u>TPQ</u> |
| None                 |             |           |            |

**Section 311 and 312 Health and Physical Hazards:**

|                  |                |             |                 |                   |
|------------------|----------------|-------------|-----------------|-------------------|
| <u>Immediate</u> | <u>Delayed</u> | <u>Fire</u> | <u>Pressure</u> | <u>Reactivity</u> |
| yes              | yes            | no          | no              | No                |

**Section 313 Toxic Chemicals (40 CFR 372):**

|                      |                   |                          |
|----------------------|-------------------|--------------------------|
| <u>Chemical Name</u> | <u>CAS Number</u> | <u>Percent by Weight</u> |
| Sodium nitrite       | 7632-00-0         | 1-10                     |

**US State Regulations:**

California Proposition 65: This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**International Inventories:** No data

**16: OTHER INFORMATION**

**Other Classifications:**

**HMIS Ratings:** Health = 3 Flammability = 0 Reactivity = 0

**NFPA Ratings:** Health = 3 Flammability = 0 Reactivity = 0

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

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While the information and recommendations set forth herein are believed to be accurate as of the date thereof, NU-CALGON WHOLESALER, INC MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.