SAFETY DATA SHEET

Issue Date 23-May-2016  Revision Date 10-Aug-2016  Version 4  Page 1 / 15

1. IDENTIFICATION

Product identifier
Product Name  Phosphorus LR TNT Reagent C

Other means of identification
Product Code(s)
TNT843C

Safety data sheet number  M02446

Component of Kits or Sets  2925000; 2925100; 2925100K; TNT843

Recommended use of the chemical and restrictions on use
Recommended Use  Laboratory reagent.
Uses advised against  None.
Restrictions on use  None.

Details of the supplier of the safety data sheet
Manufacturer Address  Hach Company
P.O.Box 389  Loveland, CO 80539 USA
(970) 669-3050

Emergency telephone number
(303) 623-5716 - 24 Hour Service  (515)232-2533 - 8am - 4pm CST

Product Information
Chemical Name  Not applicable
Formula  Not applicable
CAS No  Not applicable
Alternate CAS Number  Not applicable
NIOSH (RTECS) Number  None reported

2. HAZARDS IDENTIFICATION

Classification
Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Hazards not otherwise classified (HNOC)
Not applicable

Label elements
Signal word - Warning
Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H361 - Suspected of damaging fertility or the unborn child
H335 - May cause respiratory irritation

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P281 - Use personal protective equipment as required
P264 - Wash face, hands and any exposed skin thoroughly after handling
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P308+P313 - IF exposed or concerned: Get medical advice/attention
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P405 - Store locked up
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P501 - Dispose of contents/container to an approved waste disposal plant

Other Information
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Chemical Family
Mixture.

Percent ranges are used where confidential product information is applicable.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Percent Range</th>
<th>HMRIC #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate</td>
<td>10565-76-7</td>
<td>10 - 30</td>
<td>-</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Description of first aid measures

General advice
Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Ingestion
Clean mouth with water and drink afterwards plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider
First aider: Pay attention to self-protection. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Symptoms
See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide. Dry chemical. Water.

Unsuitable extinguishing media
No information available.

Flammable properties
Can burn in fire, releasing toxic vapors. Material is not classified as flammable according to GHS criteria.

Specific hazards arising from the chemical
May react violently with: strong oxidizers.

Hazardous combustion products
carbon monoxide, carbon dioxide, sodium oxides. Boron 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

U.S. Notice
Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.
Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

**EC Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**WHMIS Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Personal precautions, protective equipment and emergency procedures**

- **Personal precautions**
  Use personal protective equipment as required.

- **For emergency responders**
  Use personal protective equipment as required.

**Environmental precautions**

- **Environmental precautions**
  Stop spilled material from being released to the environment. See Section 12 for additional ecological information.

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

- **Methods for containment**
  Stop spilled material from being released to the environment.

- **Methods for cleaning up**
  Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

**Emergency Response Guide Number**

Not applicable

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

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

- **Storage Conditions**
  Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

- **Flammability class**
  Not applicable

- **Incompatible materials**

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate 10 - 30</td>
<td>STEL: 6 mg/m³, TWA: 2 mg/m³</td>
<td>NDF</td>
<td>NDF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Alberta OEL</th>
<th>British Columbia</th>
<th>Manitoba OEL</th>
<th>New Brunswick</th>
<th>New Foundland &amp;</th>
</tr>
</thead>
</table>
Product Code(s) TNT843C  Product Name Phosphorus LR TNT Reagent C
Issue Date 23-May-2016  Revision Date 10-Aug-2016
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<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Northwest Territories OEL</th>
<th>Nova Scotia OEL</th>
<th>Nunavut OEL</th>
<th>Ontario TWA</th>
<th>Prince Edward Island OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate 10 - 30</td>
<td>NDF</td>
<td>STEL: 6 mg/m³  TWA: 2 mg/m³</td>
<td>NDF</td>
<td>NDF</td>
<td>STEL: 6 mg/m³  TWA: 2 mg/m³</td>
</tr>
</tbody>
</table>

**Legend**
See section 16 for terms and abbreviations

**Appropriate engineering controls**
- **Engineering Controls**
  - Showers
  - Eyewash stations
  - Ventilation systems

**Individual protection measures, such as personal protective equipment**
- **Eye/face protection**
  - Tight sealing safety goggles.
- **Skin and body protection**
  - Wear protective gloves and protective clothing.
- **Respiratory protection**
  - In case of insufficient ventilation, wear suitable respiratory equipment.
- **General Hygiene Considerations**
  - Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

**Environmental exposure controls**
Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Gas Under Pressure</td>
<td>Not classified according to GHS criteria</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>No information available</td>
<td>Color white</td>
</tr>
<tr>
<td>Odor</td>
<td>Not determined</td>
<td>Odor threshold No data available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>192 °C / 378 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
Vapor pressure: Not applicable
Vapor density (air = 1): Not applicable
Specific gravity (water = 1 / air = 1): > 0.6
Partition Coefficient (n-octanol/water): No data available
Soil Organic Carbon-Water Partition Coefficient: No data available
Autoignition temperature: No data available
Decomposition temperature: No data available
Dynamic viscosity: Not applicable
Kinematic viscosity: Not applicable

### Solubility(ies)

**Water solubility**

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely soluble</td>
<td>330000 mg/L</td>
<td>20 °C / 68 °F</td>
</tr>
</tbody>
</table>

### Solubility in other solvents

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Solubility classification</th>
<th>Solubility</th>
<th>Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>None reported</td>
<td>No information available</td>
<td>No data available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### Other Information

**Metal Corrosivity**: Not classified as corrosive to metal according to GHS criteria

**Steel Corrosion Rate**: Not applicable

**Aluminum Corrosion Rate**: Not applicable

**Volatile Organic Compounds (VOC) Content**: Not applicable.

**Bulk density**: No data available

**Explosive properties**: Not classified according to GHS criteria.

**Explosion data**

- **Upper explosion limit**: No data available
- **Lower explosion limit**: No data available

**Flammable properties**

- **Flammability Limit in Air**
  - **Upper flammability limit**: No data available
  - **Lower flammability limit**: No data available
- Can burn in fire, releasing toxic vapors. Material is not classified as flammable according to GHS criteria.

**Flash point**: Not applicable
Oxidizing properties
Not classified according to GHS criteria.

Reactivity properties
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

### 10. STABILITY AND REACTIVITY

**Reactivity properties**
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

**Chemical stability**
Stable under recommended storage conditions.

**Special dangers of the product**
None reported

**Possibility of Hazardous Reactions**
None under normal processing.

- **Hazardous polymerization**
  Hazardous polymerization does not occur.

**Conditions to avoid**
Excess moisture. Poor Ventilation.

**Incompatible materials**

**Hazardous Decomposition Products**
Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.

**Explosive properties**
Not classified according to GHS criteria. Can burn in fire, releasing toxic vapors.

- **Upper explosion limit**
  No data available

- **Lower explosion limit**
  No data available

**Autoignition temperature**
No data available

**Sensitivity to Static Discharge**
None reported

**Sensitivity to Mechanical Impact**
None reported

### 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

<table>
<thead>
<tr>
<th>Product Information</th>
<th>May cause respiratory irritation. Causes skin irritation. Causes eye irritation.</th>
</tr>
</thead>
</table>
Inhalation
Avoid breathing dust/fume/gas/mist/vapors/spray. Inhalation of dust in high concentration may cause irritation of respiratory system.

Eye contact
Contact with eyes may cause irritation.

Skin contact
Causes skin irritation.

Ingestion
Ingestion may cause irritation to mucous membranes.

Aggravated Medical Conditions
Pre-existing: Eye disorders. Skin disorders. Respiratory disorders.

Toxicologically synergistic products
None known.

Toxicokinetics, metabolism and distribution
See ingredients information below.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicokinetics, metabolism and distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate (10-30) CAS#: 10555-76-7</td>
<td>Boric acid, sodium salt and borates are not metabolized, neither do they accumulate in the body except for low deposit in bone. No organic boron compounds have been reported as metabolites.</td>
</tr>
</tbody>
</table>

Product Acute Toxicity Data

Oral Exposure Route
No data available

Dermal Exposure Route
No data available

Inhalation (Dust/Mist) Exposure Route
No data available

Inhalation (Vapor) Exposure Route
No data available

Inhalation (Gas) Exposure Route
No data available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5,478.00 mg/kg

Ingredient Acute Toxicity Data

Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate (10-30)</td>
<td>Rat LD50</td>
<td>2330 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>HSDB (Hazardous Substances Data Bank)</td>
</tr>
<tr>
<td>CAS#: 10555-76-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dermal Exposure Route
No data available

Inhalation (Dust/Mist) Exposure Route
No data available

Inhalation (Vapor) Exposure Route
No data available

Inhalation (Gas) Exposure Route
No data available

Product Skin Corrosion/Irritation Data
No data available.

Ingredient Skin Corrosion/Irritation Data
No data available
Product Code(s): TNT843C  
Issue Date: 23-May-2016  
Version: 4  
Product Name: Phosphorus LR TNT Reagent C  
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Product Serious Eye Damage/Eye Irritation Data  
No data available.

Ingredient Eye Damage/Eye Irritation Data  
No data available

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route  
No data available.

Respiratory Sensitization Exposure Route  
No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route  
No data available.

Respiratory Sensitization Exposure Route  
No data available.

Chronic Toxicity Information

Product Repeat Dose Toxicity Data

Oral Exposure Route  
No data available.

Dermal Exposure Route  
No data available.

Inhalation (Dust/Mist) Exposure Route  
No data available.

Inhalation (Vapor) Exposure Route  
No data available.

Inhalation (Gas) Exposure Route  
No data available.

Ingredient Repeat Dose Toxicity Data

Oral Exposure Route  
No data available.

Dermal Exposure Route  
No data available.

Inhalation (Dust/Mist) Exposure Route  
No data available.

Inhalation (Vapor) Exposure Route  
No data available.

Inhalation (Gas) Exposure Route  
No data available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate</td>
<td>10555-76-7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)  
IARC (International Agency for Research on Cancer)  
NTP (National Toxicology Program)  
OSHA (Occupational Safety and Health Administration of the US Department of Labor)  

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not apply</td>
<td>Does not apply</td>
<td>Does not apply</td>
<td>X - Present</td>
</tr>
</tbody>
</table>
Product Code(s)  TNT843C
Issue Date 23-May-2016
Version 4

Product Name  Phosphorus LR TNT Reagent C
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Product Carcinogenicity Data
Oral Exposure Route
No data available
Dermal Exposure Route
No data available
Inhalation (Dust/Mist) Exposure Route
No data available
Inhalation (Vapor) Exposure Route
No data available
Inhalation (Gas) Exposure Route
No data available

Ingredient Carcinogenicity Data
Oral Exposure Route
No data available
Dermal Exposure Route
No data available
Inhalation (Dust/Mist) Exposure Route
No data available
Inhalation (Vapor) Exposure Route
No data available
Inhalation (Gas) Exposure Route
No data available

Product Germ Cell Mutagenicity  invitro Data
No data available

Ingredient Germ Cell Mutagenicity  invitro Data
Oral Exposure Route
No data available
Dermal Exposure Route
No data available
Inhalation (Dust/Mist) Exposure Route
No data available
Inhalation (Vapor) Exposure Route
No data available
Inhalation (Gas) Exposure Route
No data available

Ingredient Germ Cell Mutagenicity  invivo Data
Oral Exposure Route
No data available
Dermal Exposure Route
No data available
Inhalation (Dust/Mist) Exposure Route
No data available
Inhalation (Vapor) Exposure Route
No data available
Inhalation (Gas) Exposure Route
No data available
**Product Code(s)**  TNT843C  
**Issue Date**  23-May-2016  
**Version**  4

**Product Name**  Phosphorus LR TNT Reagent C  
**Revision Date**  10-Aug-2016  
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### Ingredient Reproductive Toxicity Data

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Based on the classification principles, not classified as hazardous to the environment.

**Product Ecological Data**

**Aquatic toxicity**

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>No data available</td>
</tr>
<tr>
<td>Crustacea</td>
<td>No data available</td>
</tr>
<tr>
<td>Algae</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Terrestrial toxicity**

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil</td>
<td>No data available</td>
</tr>
<tr>
<td>Vertebrates</td>
<td>No data available</td>
</tr>
<tr>
<td>Invertebrates</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Ingredient Ecological Data**

**Aquatic toxicity**

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Toxicity Data</th>
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</thead>
<tbody>
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<td>No data available</td>
</tr>
<tr>
<td>Crustacea</td>
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</tr>
<tr>
<td>Algae</td>
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**Terrestrial toxicity**

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Toxicity Data</th>
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</thead>
<tbody>
<tr>
<td>Soil</td>
<td>No data available</td>
</tr>
<tr>
<td>Vertebrates</td>
<td>No data available</td>
</tr>
<tr>
<td>Invertebrates</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Other Information**

**Persistence and degradability**

No information available.

**Product Biodegradability Data**
No data available.

**Ingredient Biodegradability Data**
No data available

**Bioaccumulation**
No information available.

**Product Bioaccumulation Data**
No data available.

**Ingredient Bioaccumulation Data**
No data available

**Additional information**

**Product Information**
No data available

**Partition Coefficient (n-octanol/water)**
No data available

**Ingredient Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient (n-octanol/water)</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate (10 - 30) CAS#: 10555-76-7</td>
<td>log (K_{ow} = -3.73)</td>
<td>Estimation through KOWWIN v1.68 part of the Estimation Programs Interface (EPI) Suite™</td>
</tr>
</tbody>
</table>

**Mobility**
No information available.

**Product Information**
No data available

**Soil Organic Carbon-Water Partition Coefficient**
No data available

**Ingredient Information**

**Additional information**

**Water solubility**

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely soluble</td>
<td>330000 mg/L</td>
<td>20 °C / 68 °F</td>
</tr>
</tbody>
</table>

**Ingredient Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water solubility temperature °C</th>
<th>Water solubility temperature °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate (10 - 30) CAS#: 10555-76-7</td>
<td>Completely soluble</td>
<td>200000 mg/L</td>
<td>20 °C</td>
<td>68 °F</td>
</tr>
</tbody>
</table>

**Other adverse effects**
Contains a substance with an endocrine-disrupting potential.
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
Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT
Not regulated

TDG
Not regulated

IATA
Not regulated

IMDG
Not regulated

Additional information
There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories
TSCA
Complies

DSL/NDSL
Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories
EINECS/ELINCS
Complies

ENCS
Complies

IECS
Complies

KECL
Complies

PICCS
Complies

TCSI
Complies

AICS
Complies

NZIoC
Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECS - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (HBO2), sodium salt, tetrahydrate 10555-76-7</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA and HMIS Classifications

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards - 2</th>
<th>Flammability - 0</th>
<th>Instability - 0</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Personal protection - X</td>
</tr>
<tr>
<td>HMIS</td>
<td></td>
<td></td>
<td>Physical hazards - 0</td>
<td>- See section 8 for more information</td>
</tr>
</tbody>
</table>

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH
Immediately Dangerous to Life or Health
ACGIH
ACGIH (American Conference of Governmental Industrial Hygienists)
NDF
no data
Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>TWA (time-weighted average)</td>
</tr>
<tr>
<td>MAC</td>
<td>Maximum Allowable Concentration</td>
</tr>
<tr>
<td>X</td>
<td>Listed</td>
</tr>
<tr>
<td>SKN*</td>
<td>Skin designation</td>
</tr>
<tr>
<td>RSP+</td>
<td>Respiratory sensitization</td>
</tr>
<tr>
<td>C</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>M</td>
<td>mutagen</td>
</tr>
<tr>
<td>STEL</td>
<td>STEL (Short Term Exposure Limit)</td>
</tr>
<tr>
<td>Ceiling</td>
<td>Ceiling Limit Value</td>
</tr>
<tr>
<td>Vacated</td>
<td></td>
</tr>
</tbody>
</table>

These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.

Prepared By

Hach Product Compliance Department

Issue Date

23-May-2016

Revision Date

10-Aug-2016

Revision Note

None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet