1. IDENTIFICATION

Product identifier
Product Name StablCal® Standard, 100 NTU

Other means of identification
Product Code(s) 2660249

Safety data sheet number M01360

Recommended use of the chemical and restrictions on use
Recommended Use Laboratory Use. Standard solution.
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

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>Sensitization</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory</td>
<td>1</td>
</tr>
<tr>
<td>Skin</td>
<td>1</td>
</tr>
</tbody>
</table>

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word - Danger
Hazard statements
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317 - May cause an allergic skin reaction

Precautionary statements
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P284 - Wear respiratory protection
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
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>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane</td>
<td>100-97-0</td>
<td>5 - 10%</td>
<td>-</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>7757-82-6</td>
<td>0.1 - 1%</td>
<td>-</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>&lt;0.1%</td>
<td>-</td>
</tr>
<tr>
<td>Ammonium sulfate</td>
<td>7783-20-2</td>
<td>&lt;0.1%</td>
<td>-</td>
</tr>
</tbody>
</table>
5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
No information available.

Flammable properties
During a fire, this product decomposes to form toxic gases.

Specific hazards arising from the chemical
May react violently with. Strong acids. Strong oxidizers. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Hazardous combustion products
This material will not burn.

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**
Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

**For emergency responders**
Use personal protection recommended in Section 8.

**Environmental precautions**
Avoid release to the environment. See Section 12 for additional ecological information.

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

**Methods for containment**
Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up**
Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. 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 out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

**Flammability class**
Not applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Ceiling: 0.3 ppm</td>
<td>TWA: 0.75 ppm (vacated) TWA: 3 ppm (vacated) STEL: 10 ppm (vacated) Ceiling: 5 ppm STEL: 2 ppm</td>
<td>IDLH: 20 ppm Ceiling: 0.1 ppm 15 min TWA: 0.016 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Alberta OEL</th>
<th>British Columbia OEL</th>
<th>Manitoba OEL</th>
<th>New Brunswick OEL</th>
<th>New Foundland &amp; Labrador OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Ceiling: 1 ppm TWA: 0.75 ppm</td>
<td>TWA: 0.3 ppm Ceiling: 1 ppm SKN+</td>
<td>TWA: 0.5 ppm STEL: 1.5 ppm</td>
<td>RSP+ Ceiling: 0.3 ppm SKN+</td>
<td></td>
</tr>
</tbody>
</table>
### 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>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

**Physical state**

Liquid

**Gas Under Pressure**

Not classified according to GHS criteria

**Appearance**

Turbid solution  
aqueous solution

**Color**

Milky white

**Odor**

Odorless

**Odor threshold**

No data available
pH 8.14

Melting point/freezing point 0 °C / 32 °F

Boiling point / boiling range 100 °C / 212 °F

Evaporation rate 1 (water = 1) Estimation based on theoretical calculation

Vapor pressure 17.477 mm Hg / 2.33 kPa at 20 °C / 68 °F Estimation based on theoretical calculation

Vapor density (air = 1) 0.62

Specific gravity (water = 1 / air = 1) 1.02

Partition Coefficient (n-octanol/water) Not applicable

Soil Organic Carbon-Water Partition Coefficient Not applicable

Autoignition temperature No data available

Decomposition temperature No data available

Dynamic viscosity No data available

Kinematic viscosity No data available

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>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °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>Acid</td>
<td>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>

Other Information

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

Steel Corrosion Rate No data available

Aluminum Corrosion Rate No data available

Volatile Organic Compounds (VOC) Content No information available.

Bulk density Not applicable

Explosive properties Not classified according to GHS criteria.

Explosion data No data available

Upper explosion limit No data available

Lower explosion limit No data available
Product Code(s) 2660249
Issue Date 25-Jul-2016
Version 6

Product Name StablCal® Standard, 100 NTU
Revision Date 24-Oct-2016
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Flammable properties
During a fire, this product decomposes to form toxic gases.

Flammability Limit in Air
Upper flammability limit: No data available
Lower flammability limit: No data available

Flash point
No data available

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
No information available

Possibility of Hazardous Reactions
No information available.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Poor Ventilation. Extremes of temperature and direct sunlight.

Incompatible materials
Oxidizers. Acids.

Hazardous Decomposition Products

Explosive properties
Not classified according to GHS criteria.

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

NIOSH (RTECS) Number
None reported

Information on Likely Routes of Exposure

<table>
<thead>
<tr>
<th>Product Information</th>
<th>Respiratory sensitizer. Skin sensitizer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May cause sensitization by inhalation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No known effect based on information supplied.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>May cause sensitization by skin contact.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known effect based on information supplied.</td>
</tr>
</tbody>
</table>

Aggravated Medical Conditions
Respiratory disorders. Skin disorders.

Toxicologically synergistic products
None known.

Toxicokinetics, metabolism and distribution
See ingredients information below.

Chemical Name | Toxicokinetics, metabolism and distribution
---------------|-----------------------------------------
Formaldehyde (<0.1%) | Readily Absorbed via the respiratory and gastrointestinal routes. Absorbed formaldehyde can be oxidized to formate and carbon dioxide. Half-life of formaldehyde is 1 min in rat plasma.

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) | 7,175.00 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>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan e (5 - 10%)</td>
<td>Rat LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>569 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>Vendor SDS</td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%)</td>
<td>Rat LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>100 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>No information available</td>
</tr>
<tr>
<td>Ammonium sulfate (&lt;0.1%)</td>
<td>Rat LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>2840 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)</td>
</tr>
</tbody>
</table>

Chemical Name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium sulfate (0.1 - 1%)</td>
<td>Mouse LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>5989 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>IUCLID (The International Uniform Chemical Information Database)</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Endpoint type</td>
<td>Reported dose</td>
<td>Exposure time</td>
<td>Toxicological effects</td>
<td>Key literature references and sources for data</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>-----------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Human LD&lt;sub&gt;10&lt;/sub&gt;</td>
<td>70 mg/kg</td>
<td>None reported</td>
<td>Kidney, Ureter, or Bladder Other changes Liver</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>Ammonium sulfate</td>
<td>Man TD&lt;sub&gt;lo&lt;/sub&gt;</td>
<td>1500 mg/kg</td>
<td>None reported</td>
<td>Gastrointestinal Gas</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Endpoint type</td>
<td>Reported dose</td>
<td>Exposure time</td>
<td>Toxicological effects</td>
<td>Key literature references and sources for data</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Human LD&lt;sub&gt;10&lt;/sub&gt;</td>
<td>643 mg/kg</td>
<td>None reported</td>
<td>Lungs, Thorax, or Respiration Respiratory obstruction</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>Ammonium sulfate</td>
<td>Domestic mammal - Not specified LD&lt;sub&gt;lo&lt;/sub&gt;</td>
<td>3500 mg/kg</td>
<td>None reported</td>
<td>Lungs, Thorax, or Respiration Respiratory stimulation</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

### Dermal 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>Formaldehyde</td>
<td>Rabbit LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>270 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)</td>
</tr>
</tbody>
</table>

### Inhalation (Dust/Mist) Exposure Route

No data available

### Inhalation (Vapor) 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>Formaldehyde</td>
<td>Rat LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>250 mg/L</td>
<td>4 hours</td>
<td>None reported</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

### Inhalation (Gas) Exposure Route

No data available

### Product Skin Corrosion/Irritation Data

No data available.

### Ingredient Skin Corrosion/Irritation Data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan-5-one (5 - 10%) CAS#: 100-97-0</td>
<td>Organization for Economic Co-operation and Development (OECD) - Test 404: Acute Dermal Corrosion/Irritation</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>4 hours</td>
<td>Not corrosive or irritating to skin</td>
<td>ECHA (The European Chemicals Agency)</td>
</tr>
<tr>
<td>Sodium sulfate (0.1 - 1%) CAS#: 7757-82-6</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>4 hours</td>
<td>Not corrosive or irritating to skin</td>
<td>ECHA (The European Chemicals Agency)</td>
</tr>
<tr>
<td>Formaldehyde  (&lt;0.1%) CAS#: 50-00-0</td>
<td>Standard Draize Test</td>
<td>Human</td>
<td>0.150 mg</td>
<td>72 hours</td>
<td>Corrosive to skin</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>
Ammonium sulfate
(<0.1%)
CAS#: 7783-20-2
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
</table>
| Sodium sulfate
(0.1 - 1%)
CAS#: 7757-82-6 | Open Irritation Test | Guinea pig | 100 mg       | 5 days       | Not corrosive or irritating to skin     | ECHA (The European Chemicals Agency)          |
| Formaldehyde
(<0.1%)
CAS#: 50-00-0 | Standard Draize Test | Rabbit | 2 mg         | 24 hours     | Corrosive to skin                      | RTECS (Registry of Toxic Effects of Chemical Substances) |

**Product Serious Eye Damage/Eye Irritation Data**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan-5-e (5 - 10%) CAS#: 100-97-0</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>100 mg</td>
<td>None reported</td>
<td>Not corrosive or irritating to eyes</td>
<td>ECHA (The European Chemicals Agency)</td>
</tr>
</tbody>
</table>
| Sodium sulfate
(0.1 - 1%)
CAS#: 7757-82-6 | Standard Draize Test | Rabbit | 90 mg | 24 hours | Not corrosive or irritating to eyes     | ECHA (The European Chemicals Agency)          |
| Formaldehyde
(<0.1%)
CAS#: 50-00-0 | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes                       | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Ammonium sulfate
(<0.1%)
CAS#: 7783-20-2 | Standard Draize Test | Rabbit | 0.050 mL | None reported | Not corrosive or irritating to eyes     | ECHA (The European Chemicals Agency)          |
| Formaldehyde
(<0.1%)
CAS#: 50-00-0 | Standard Draize Test | Rabbit | 0.750 mg | 24 hours | Corrosive to eyes                       | RTECS (Registry of Toxic Effects of Chemical Substances) |

**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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Species</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
</table>
| Sodium sulfate
(0.1 - 1%)
CAS#: 7757-82-6 | OECD Test No. 406: Skin Sensitization | Guinea pig | Not confirmed to be a skin sensitizer | HSDB (Hazardous Substances Data Bank) |
| Formaldehyde
(<0.1%) | Patch test | Human | Confirmed to be a skin sensitizer | ERMA (New Zealands Environmental Risk Management Authority) |
Respiratory Sensitization Exposure Route

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Species</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane (5 - 10%) CAS#: 100-97-0</td>
<td>Based on human experience</td>
<td>Human</td>
<td>Confirmed to be a respiratory sensitizer</td>
<td>HSDB (Hazardous Substances Data Bank)</td>
</tr>
<tr>
<td>Formaldehyde (&gt;0.1%) CAS#: 50-00-0</td>
<td>IgE Specific Immune Response Test</td>
<td>Guinea pig</td>
<td>Confirmed to be a respiratory sensitizer</td>
<td>CICAD (Concise International Chemical Assessment Documents)</td>
</tr>
</tbody>
</table>

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 | Toxicological data for ingredients is not indicative of likely harm. |
| Inhalation (Vapor) Exposure Route | Toxicological data for ingredients is not indicative of likely harm. |
| Inhalation (Gas) Exposure Route | No data available |

<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>Formaldehyde (&gt;0.1%) CAS#: 50-00-0</td>
<td>Human TC&lt;sub&gt;L&lt;/sub&gt;</td>
<td>0.017 mg/L</td>
<td>0.5 days</td>
<td>Eye</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lungs, Thorax, or Respiration Other changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
<td></td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Endpoint type</td>
<td>Reported dose</td>
<td>Exposure time</td>
<td>Toxicological effects</td>
<td>Key literature references and sources for data</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>-----------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Formaldehyde (&gt;0.1%) CAS#: 50-00-0</td>
<td>Human TC&lt;sub&gt;L&lt;/sub&gt;</td>
<td>2 mg/L</td>
<td>40 minutes</td>
<td>Lungs, Thorax, or Respiration Other changes Respiratory depression</td>
<td></td>
</tr>
</tbody>
</table>

Legend

<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>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane</td>
<td>100-97-0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>7757-82-6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>Ammonium sulfate</td>
<td>7783-20-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
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

Ingredient Germ Cell Mutagenicity

Chemical Name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data
--- | --- | --- | --- | --- | --- | ---
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan-5-ol (5 - 10%) CAS#: 100-97-0 | Cytogenetic analysis | Human HeLa Cell | 1 mmol/L | None reported | Positive test result for mutagenicity | RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity

No data available.
**Product Code(s)** 2660249  
**Issue Date** 25-Jul-2016  
**Product Name** StablCal® Standard, 100 NTU  
**Revision Date** 24-Oct-2016  
**Version** 6  
**Page** 13 / 21

**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 invivoData**

**Oral Exposure Route**  
No data available

**Dermal Exposure Route**  
No data available

**Exposure Route**

### Inhalation (Dust/Mist) Exposure Route

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>DNA damage</td>
<td>Rat</td>
<td>0.000035 mg/L</td>
<td>8 weeks</td>
<td>Positive test result for mutagenicity</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

### Inhalation (Vapor) Exposure Route

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Micronucleus test</td>
<td>Human</td>
<td>0.00985 mg/L</td>
<td>8.5 years</td>
<td>Positive test result for mutagenicity</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>Mouse TDLo</td>
<td>14000 mg/kg</td>
<td>4 days</td>
<td>Effects on Newborn</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
<td></td>
</tr>
</tbody>
</table>

### Inhalation (Gas) Exposure Route

No data available

**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 Reproductive Toxicity Data**

**Oral Exposure Route**

Toxicological data for ingredients is not indicative of likely harm.

### 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>Sodium sulfate</td>
<td>Mouse TDLo</td>
<td>14000 mg/kg</td>
<td>4 days</td>
<td>Effects on Newborn</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

### Dermal Exposure Route

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

Inhalation (Vapor) Exposure Route
Toxicological data for ingredients is not indicative of likely harm.

<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>Formaldehyde (&lt;0.1%)</td>
<td>Rat TC&lt;sub&gt;Lo&lt;/sub&gt;</td>
<td>40 mg/L</td>
<td>14 days</td>
<td>Effects on Embryo or Fetus</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 50-00-0</td>
<td></td>
<td></td>
<td></td>
<td>Fetotoxicity (except death e.g. stunted fetus)</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%)</td>
<td>Rat TC&lt;sub&gt;Lo&lt;/sub&gt;</td>
<td>.001 mg/L</td>
<td>24 weeks</td>
<td>Effects on Embryo or Fetus</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 50-00-0</td>
<td></td>
<td></td>
<td></td>
<td>Cytological changes (including somatic cell genetic material)</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%)</td>
<td>Rat TC&lt;sub&gt;Lo&lt;/sub&gt;</td>
<td>.0005 mg/L</td>
<td>19 days</td>
<td>Specific Developmental AbnormalitiesMusculoskeletal system</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 50-00-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inhalation (Gas) Exposure Route
No data available

12. ECOLOGICAL INFORMATION

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

Product Ecological Data

Aquatic toxicity

Fish
No data available

Crustacea
No data available

Algae
No data available

Terrestrial toxicity

Soil
No data available

Vertebrates
No data available

Invertebrates
No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan e (5 - 10%)</td>
<td>96 hours</td>
<td>Alburnus alburnus</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>&gt; 10000 mg/L</td>
<td>No information available</td>
</tr>
<tr>
<td>CAS#: 100-97-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium sulfate (0.1 - 1%)</td>
<td>96 hours</td>
<td>None reported</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>56 mg/L</td>
<td>IUCLID (The International Uniform Chemical Information Database)</td>
</tr>
<tr>
<td>CAS#: 7757-82-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%)</td>
<td>96 hours</td>
<td>Morone saxatilis</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>6.7 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
<tr>
<td>CAS#: 50-00-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Chemical Name Exposure time Species Endpoint type Reported dose Key literature references and sources for data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium sulfate (&lt;0.1%) CAS#: 7783-20-2</td>
<td>96 hours</td>
<td>Oncorhynchus mykiss</td>
<td>LC₅₀</td>
<td>36.7 mg/L</td>
<td>GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)</td>
</tr>
<tr>
<td>Sodium sulfate (0.1 - 1%) CAS#: 7757-82-6</td>
<td>96 hours</td>
<td>Pimephales promelas</td>
<td>LC₅₀</td>
<td>7960 mg/L</td>
<td>IUCLID (The International Uniform Chemical Information Database)</td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%) CAS#: 50-00-0</td>
<td>96 hours</td>
<td>None reported</td>
<td>LC₅₀</td>
<td>52.5 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
<tr>
<td>Ammonium sulfate (&lt;0.1%) CAS#: 7783-20-2</td>
<td>96 hours</td>
<td>None reported</td>
<td>LC₅₀</td>
<td>365 mg/L</td>
<td>GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)</td>
</tr>
</tbody>
</table>

### Crustacea

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatriclo[3.3.1.1(3,7)]decan e (5 - 10%) CAS#: 100-97-0</td>
<td>48 Hours</td>
<td>Daphnia magna</td>
<td>EC₅₀</td>
<td>&gt; 36000 mg/L</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
<tr>
<td>Sodium sulfate (0.1 - 1%) CAS#: 7757-82-6</td>
<td>48 Hours</td>
<td>Daphnia magna</td>
<td>EC₅₀</td>
<td>3150 mg/L</td>
<td>IUCLID (The International Uniform Chemical Information Database)</td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%) CAS#: 50-00-0</td>
<td>48 Hours</td>
<td>Daphnia pulex</td>
<td>EC₅₀</td>
<td>5.8 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
<tr>
<td>Ammonium sulfate (&lt;0.1%) CAS#: 7783-20-2</td>
<td>48 Hours</td>
<td>None reported</td>
<td>LC₅₀</td>
<td>14 mg/L</td>
<td>GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)</td>
</tr>
</tbody>
</table>

### Algae

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatriclo[3.3.1.1(3,7)]decan e (5 - 10%) CAS#: 100-97-0</td>
<td>72 hours</td>
<td>Selenastrum capricornutum</td>
<td>EC₅₀</td>
<td>&gt; 100 mg/L</td>
<td>CEPA (Canadian Environmental Protection Agency)</td>
</tr>
</tbody>
</table>

### Terrestrial toxicity

- **Soil**: No data available
- **Vertebrates**: No data available
Invertebrates

No data available

**Other Information**

**Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL): Environmentally Hazardous Substances Categorizations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Category</th>
<th>Persistent</th>
<th>Bioaccumulation</th>
<th>Inherently Toxic to Aquatic Organisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium sulfate (&lt;0.1%)</td>
<td>Inorganics</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>CAS#: 7783-20-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**
None known.

**Product Biodegradability Data**
If available, see ingredient data below.

**Ingredient Biodegradability Data**
Test data reported below

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Biodegradation</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decan-5 - 10% (CAS#: 100-97-0)</td>
<td>None reported</td>
<td>70%</td>
<td>28 days</td>
<td>Readily biodegradable</td>
</tr>
<tr>
<td>Formaldehyde (&lt;0.1%) (CAS#: 50-00-0)</td>
<td>None reported</td>
<td>99%</td>
<td>28 days</td>
<td>Readily biodegradable</td>
</tr>
</tbody>
</table>

**Bioaccumulation**
If available, see ingredient data below.

**Product Bioaccumulation Data**
If available, see ingredient data below.

**Ingredient Bioaccumulation Data**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test method</th>
<th>Exposure time</th>
<th>Species</th>
<th>Bioconcentration factor (BCF)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (&lt;0.1%) (CAS#: 50-00-0)</td>
<td>None reported</td>
<td>None reported</td>
<td>None reported</td>
<td>None reported</td>
<td>Does not have the potential to bioaccumulate</td>
</tr>
</tbody>
</table>

**Additional information**

**Product Information**

**Partition Coefficient (n-octanol/water)**
Not applicable

**Ingredient Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
<th>Method</th>
</tr>
</thead>
</table>
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane (5 - 10%)
CAS#: 100-97-0

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Soil Organic Carbon-Water Partition Coefficient</th>
<th>Method</th>
</tr>
</thead>
</table>
| Sodium sulfate (0.1 - 1%)
CAS#: 7757-82-6 | log Koc = -1.4 |
| Formaldehyde (<0.1%)
CAS#: 50-00-0 | log Koc = 0.89 |

**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>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>

**Ingredient Information**

1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane
CAS#: 100-97-0

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.

US EPA Waste Number
Not applicable, U122

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>U122</td>
<td>Included in waste streams: K009, K010, K038, K040, K156, K157</td>
<td>-</td>
<td>U122</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Not regulated

Special Provisions

TDG
Not regulated

IATA
Not regulated

IMDG
Not regulated

Note:
No special precautions necessary.

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
Does not comply

IECSC
Complies

KECL
Complies

PICCS
Complies

TCSI
Complies

AICS
Complies

NZIoC
Does not comply

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
Product Code(s) 2660249
Product Name StablCal® Standard, 100 NTU
Issue Date 25-Jul-2016
Revision Date 24-Oct-2016
Version 6
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IECSC- 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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (CAS #: 50-00-0)</td>
<td>0.1</td>
</tr>
<tr>
<td>Ammonium sulfate (CAS #: 7783-20-2)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

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)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde 50-00-0</td>
<td>100 lb</td>
<td></td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde 50-00-0</td>
<td>100 lb</td>
<td>100 lb</td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (&lt;0.1%) CAS#: 50-00-0</td>
<td>Release - Toxic (solution)</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (CAS #: 50-00-0)</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>
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>1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane 100-97-0</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sodium sulfate 7757-82-6</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Formaldehyde 50-00-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ammonium sulfate 7783-20-2</td>
<td>-</td>
<td>X</td>
<td>X</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</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>Flammability</td>
<td>Physical hazards</td>
<td>Personal protection</td>
</tr>
<tr>
<td></td>
<td>- 2</td>
<td>0</td>
<td>0</td>
<td>- X</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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value
X Listed Vacated

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.

SKN* Skin designation SKN+ Skin sensitization
RSP+ Respiratory sensitization ** Hazard Designation
C Carcinogen R Reproductive toxicant
M mutagen

Prepared By Hach Product Compliance Department
Issue Date 25-Jul-2016
Revision Date 24-Oct-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.

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End of Safety Data Sheet