SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Keeper Reagent #4

Manufacturer/Supplier Trade name: Keeper Reagent #4

Manufacturer/Supplier Article number: 

Recommended uses of the product and restrictions on use:

Manufactured for:

Bio-Cide International Inc
2650 Venture Drive, Norman, OK 73069
(405) 329-5556

Emergency telephone number:
Bio-Cide International Inc   Emergency Telephone No.: (800) 255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture: Not classified for physical or health hazards under GHS.

Signal word: None

Hazard statements: None

Precautionary statements: None

Other Non-GHS Classification:

WHMIS

NFPA/HMIS

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Notes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS 1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>0.01 %</td>
</tr>
<tr>
<td>CAS 10102-17-7</td>
<td>Sodium thiosulfate pentahydrate</td>
<td>0.143 %</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

Description of first aid measures

After inhalation:
Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

After skin contact:
Wash affected area with soap and water. Seek medical advice if discomfort or irritation persists. Flush skin with plenty of soap and water for at least 15 minutes.

After eye contact:
Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Immediately get medical assistance.

After swallowing:
Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Indication of any immediate medical attention and special treatment needed:
If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:
Irritating and toxic gases may be generated by thermal decomposition and combustion.

Advice for firefighters:
Protective equipment:
Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions):
Avoid contact with skin, eyes, and clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Normal ventilation is adequate.

Environmental precautions:
Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

Methods and material for containment and cleaning up:
Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. Dispose of
empty containers as unused product. Refer to Section 13. Small amounts may be flushed with excess water to sewer. Absorb with suitable material and treat as normal refuse.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:
Wash hands after handling. Avoid contact with skin, eyes, and clothing. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:
Keep container tightly closed in a cool, dry, and well-ventilated area. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Control Parameters: No applicable occupational exposure limits.
Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Normal ventilation is adequate.
Respiratory protection: Not required under normal conditions of use.
Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.
Eye protection: Safety glasses with side shields or goggles.
General hygienic measures: Wash hands before breaks and immediately after handling the product. Perform routine housekeeping to prevent dust generation. Before wearing again wash contaminated clothing.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance (physical state, color):</th>
<th>Clear, colorless liquid</th>
<th>Explosion limit lower:</th>
<th>Non Explosive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Odorless</td>
<td>Explosion limit upper:</td>
<td>Non Explosive</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not Determined</td>
<td>Vapor pressure:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not Determined</td>
<td>Vapor density:</td>
<td>Approx 1.0</td>
</tr>
<tr>
<td>Melting/Freezing point:</td>
<td>Approx 0°C</td>
<td>Relative density:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Approx 100°C</td>
<td>Solubilities:</td>
<td>Soluble in Water</td>
</tr>
<tr>
<td>Flash point (closed cup):</td>
<td>Not Determined</td>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not Determined</td>
<td>Auto/Self-ignition temperature:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not Determined</td>
<td>Decomposition temperature:</td>
<td>Not Determined</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Viscosity:</td>
<td>a. Kinematic: Not determined</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Dynamic: Not Determined</td>
</tr>
</tbody>
</table>
Density: Not Determined

SECTION 10: Stability and reactivity

Reactivity:
None under normal processing.

Chemical stability:
Stable under normal conditions. Light sensitive.

Possible hazardous reactions:
Not Determined.

Conditions to avoid:
Incompatible Materials.

Incompatible materials:
Strong oxidizing agents. Strong reducing agents. Metal nitrates, lead, mercury, silver salts, acids, iodine, sodium nitrate.

Hazardous decomposition products:

SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>Acute Toxicity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral:</td>
<td>1303-96-4</td>
</tr>
<tr>
<td>Dermal:</td>
<td>1303-96-4</td>
</tr>
<tr>
<td>Oral:</td>
<td>10102-17-7</td>
</tr>
<tr>
<td>LD50 Rat:</td>
<td>4,500 - 5,000 mg/kg</td>
</tr>
<tr>
<td>LD50 Rabbit:</td>
<td>10,000 mg/kg</td>
</tr>
<tr>
<td>LD50 Rat:</td>
<td>5000mg/kg</td>
</tr>
</tbody>
</table>

Chronic Toxicity: No additional information.

Corrosion Irritation: No additional information.

Sensitization: No additional information.

Single Target Organ (STOT): No additional information.

Numerical Measures: No additional information.

Carcinogenicity: No additional information.

Mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

SECTION 12: Ecological information

Ecotoxicity:
**Safety Data Sheet**

**Effective date:** June 2015

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**Keeper Reagent #4**

**Fish LC50 - Carassius auratus (goldfish) - 178 mg/l - 72 h:** 1303-96-4
**Invertebrates EC50 - Daphnia magna (Water flea) - 1,085 - 1,402 mg/l - 48 h:** 1303-96-4
**Algae IC50 - Desmodesmus subspicatus (green algae) - 158 mg/l - 96 h:** 1303-96-4

**Persistence and degradability:**

- Readily biodegradable.

**Bioaccumulative potential:**

- Not Bioaccumulative.

**Mobility in soil:** None

**Other adverse effects:** None

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**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

- Dilute with water and flush to sewer. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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**SECTION 14: Transport information**

**UN-Number:**

- Not Dangerous Goods

**UN proper shipping name:**

- Not Dangerous Goods

**Transport hazard class(es):** None

**Packing group:** Not Dangerous Goods

**Environmental hazard:** None

**Transport in bulk:** Not Applicable

**Special precautions for user:** None

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**SECTION 15: Regulatory information**

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):**

- None of the ingredients are listed.

**SARA Section 313 (Specific toxic chemical listings):**

- None of the ingredients are listed.

**RCRA (hazardous waste code):**

- None of the ingredients are listed.

**TSCA (Toxic Substances Control Act):**

- None of the ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

- None of the ingredients are listed.

**Proposition 65 (California):**

- Chemicals known to cause cancer:
None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**
None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

**Canada**

**Canadian Domestic Substances List (DSL):**
All ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 0.1%):**
None of the ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 1%):**
None of the ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:**

PNECPredicted No-Effect Concentration (REACH).
CFRCCode of Federal Regulations (USA).
SARASuperfund Amendments and Reauthorization Act (USA).
RCRAResource Conservation and Recovery Act (USA).
TSCAToxic Substances Control Act (USA).
NPRINational Pollutant Release Inventory (Canada).
DOTUSDOTUS Department of Transportation.
IATAInternational Air Transport Association.
GHSGlobally Harmonized System of Classification and Labelling of Chemicals.
ACGIHAmerican Conference of Governmental Industrial Hygienists.
CASCChemical Abstracts Service (division of the American Chemical Society).
NFPANational Fire Protection Association (USA).
HMIS Hazardous Materials Identification System (USA).
WHMIS Workplace Hazardous Materials Information System (Canada).
DNEL Derived No-Effect Level (REACH).