MATERIAL SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: MetriCide™ Plus 30 Liquid Activator
Product Use: Liquid Sterilant/High Level Disinfectant

Manufacturer: METREX™ RESEARCH
1717 W. Collins Ave.
Orange, CA 92867
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date Of Preparation/Revision: 12/3/14

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:
Not hazardous under the GHS criteria

Label Elements
None required

Section 3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water and non-hazardous ingredients</td>
<td>Mixture</td>
<td>95-99%</td>
</tr>
<tr>
<td>Sodium Nitrite</td>
<td>7632-00-0</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. If irritation develops or persists, seek medical advice.

Skin Contact: Wash with soap and water. If skin irritation develops and persists, seek medical attention.

Inhalation: Move to fresh air if effects occur. Seek medical attention if effects persist.

Ingestion: If swallowed, seek medical advice by calling a Poison Control Center or hospital emergency room. Do not induce vomiting. Do not attempt to give anything by mouth to an unconscious person.

Most important symptoms and effects, acute and delayed: May be irritating to eyes, skin and respiratory tract.

Indication of immediate medical attention and special treatment, if needed: Treat symptomatically.
Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire.

Specific Hazards Arising from the Chemical: None known.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Cleaning up: Collect material with an inert, non-combustible, absorbent material and place in appropriate, labeled container for disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid generating and breathing airborne mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Use in accordance with label directions.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature. Avoid prolonged exposure to heat and/or humidity as this reduces product effectiveness. Keep containers closed.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrite</td>
<td>None Established</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposure levels are exceeded, mechanical ventilation such as local exhaust may be needed.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where exposure levels of mists are excessive and irritation is experienced, a NIOSH approved respirator with particulate filter is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Protective gloves such as rubber or nitrile are recommended.

Eye Protection: Safety goggles recommended.
**Skin Protection:** Wear protective clothing as needed to avoid skin contact.

**Hygiene measures:** None required for normal use.

### Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td>Green liquid.</td>
</tr>
<tr>
<td><strong>Odor Threshold:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Melting/Freezing Point:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>Not flammable</td>
</tr>
<tr>
<td><strong>Flammability: (Solid, Gas)</strong></td>
<td>Not flammable</td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong></td>
<td>Same as water</td>
</tr>
<tr>
<td><strong>Relative Density:</strong></td>
<td>&gt;1.384</td>
</tr>
<tr>
<td><strong>Partition Coefficient:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition Temperature:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>No odor.</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>10.0 – 10.8</td>
</tr>
<tr>
<td><strong>Boiling Point/Range:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Flammability Limits:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapor Density:</strong></td>
<td>Same as water</td>
</tr>
<tr>
<td><strong>Solubilities:</strong></td>
<td>Soluble in Water</td>
</tr>
<tr>
<td><strong>Autoignition Temperature:</strong></td>
<td>Not flammable</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>

### Section 10. Stability and Reactivity

**Reactivity:** None known.

**Chemical Stability:** Stable.

**Possibility of Hazardous Reactions:** None known.

**Conditions to avoid:** None known.

**Incompatible Materials:** Strong oxidizing agents, reducing agents, metals and strong acids.

**Hazardous decomposition products:** Thermal decomposition will produce oxides of carbon, nitrogen and phosphorus.

### Section 11. Toxicological Information

**Potential Health Effects:**

**Inhalation:** May cause irritation of the nose, throat and upper respiratory tract.

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause irritation. Eye damage is not expected.

**Ingestion:** Do not ingest. If swallowed, may irritate mouth, throat and intestinal tract. Ingestion of sodium nitrite may cause methemoglobinemia and affect the ability of the blood to transport oxygen. Symptoms include nausea, dizziness, weakness, cyanosis (blue color or the skin and mucous membranes) and collapse.

**Chronic Hazards:** No adverse effects expected based on the available data.

**Carcinogen:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.
Acute Toxicity Values:
Sodium Nitrite: LD50 Oral Rat 180 mg/kg
Non-Hazardous Ingredients: Oral rat LD50 3530 mg/kg.

Section 12. Ecological Information

This product is not classified as harmful to the environment.

Toxicity: No toxicity data available for product.
Sodium Nitrite: LC50 rainbow trout >100 mg/L/96 hr; EC50 daphnia magna >100 mg/L/48 hr
Non-Hazardous Ingredients: LC50 fish >100 mg/L/96 hr; EC50 daphnia magna ~50 mg/L/48 hr; IC50 algae >100 mg/L/72 hr.

Persistence and degradability: No data available. Biodegradation does not apply to inorganic substances such as sodium nitrite.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: Refer to product label for disposal information. Dispose in accordance with national, state/provincial and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

Section 14. Transport Information

<table>
<thead>
<tr>
<th></th>
<th>UN Number</th>
<th>UN Proper Shipping Name</th>
<th>Hazard Class(s)</th>
<th>Packing Group</th>
<th>Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>None</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>None</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>None</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Sodium Nitrite 1-5%

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.
CERCLA SECTION 103: This product has an RQ of 2,000 lbs based on the RQ of the sodium nitrite of 100 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Canadian Regulations

National Pollutant Release Inventory (NPRI): This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None

WHMIS Classification: Class D-2-B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 1       Health: 1       Instability: 0

Effective Date: 12/3/14

Supersedes Date: 11/1/2012

Revision Summary: New GHS Formatted SDS

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