1. Identification

Product Name: Decalcifier – IHC
Item #: RS4602-B

Synonyms: N/A

Recommended Use: Laboratory Reagent

Restrictions on Use: Any use other than specified.

Supplier: Avantik
32 Commerce Street
Springfield, NJ 07081

In Case of Emergency:
Chemtrec US 1-800-424-9300

2. Hazards Identification

OSHA Hazard Classification(s):
Skin Corrosion - Category 1A
Eye Damage - Category 1
Specific Target Organ Toxicity (repeated exposure) - Category 2

Signal Word: Danger

Hazard Statement(s): Causes severe skin burns and eye damage. Causes serious eye damage. May cause damage to organs (eyes, skin, respiratory system) through prolonged or repeated exposure.

Pictogram(s):

Precautionary Statement(s):
Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection. Do not breathe dust, vapors.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing Call a doctor if you feel unwell.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A
Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS #</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td></td>
<td>64-18-6</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>Trade Secret</td>
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<tr>
<td>Select Additive</td>
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<td>Trade Secret</td>
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</tbody>
</table>

4. First Aid Measures

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): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the
lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated, cool place. Keep container tightly sealed when not in use. Keep away from heat, sources of ignition and open flame.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>OSHA PEL TWA</th>
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</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>5ppm</td>
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**ACGIH Threshold Limit Values (TLVs):**

<table>
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<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>ACGIH PEL TLV</th>
<th>ACGIH STEL</th>
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<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>5ppm</td>
<td>10ppm</td>
</tr>
</tbody>
</table>

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Colorless, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** Less than 2

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** N/A

**Odor Threshold:** N/A

**Color:** Colorless
Decalcifier - IHC

10. Stability and Reactivity
Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: Stable under normal conditions of temperature and pressure.
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information
Likely Routes of Exposure
   Eyes: Corrosive to eyes. May cause permanent damage and/or loss of vision. May cause redness and/or cornea damage.
   Skin: Corrosive to skin. May cause permanent scarring. May cause chemical burns and dermatitis.
   Inhalation: Dizziness, headache. Vapors may be irritating to lungs. May cause asthma-like symptoms.
   Ingestion: Nausea, stomach paints. Solution is corrosive and may cause burns of mouth, throat and stomach. Irritation of gastrointestinal organs.

   Signs or Symptoms of Exposure: Nausea, headaches, difficulty breathing.
   Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.
   Acute Toxicity (Numerical Measures): N/A
   Carcinogenicity (NTP, IARC, OSHA): Does not contain any known carcinogens

12. Ecological Information
Ecotoxicity: N/A
Persistence and degradability: N/A
Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A
Mobility in the soil: N/A
Adverse Environmental Effects: N/A

13. Disposal Considerations
Recommended Disposal Containers: Check with your local waste authorities*
Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*
Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*
Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*
Waste Stream: Consult your local or regional authorities.*

14. Transport Information
UN Number: UN1779
UN Proper Shipping Name: Formic Acid
Transport Hazard Class(es): 8 (3)
Packing Group Number: II
Environmental Hazards (IMDG code):
Marine Pollutant: No
Transport in Bulk (IBC Code): N/A
Special Transport Precautions: N/A

15. Regulatory Information
OSHA: N/A
DOT: N/A
EPA: N/A
CPSC: N/A
16. Other Information

**Revision Date:** 05/01/2015

**NFPA**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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<tbody>
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<td>Fire Hazard</td>
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<tr>
<td>Reactivity</td>
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<tr>
<td>Specific Hazard</td>
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**HMIS**

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**National Fire Protection Association (USA) NFPA**

![NFPA Hazard Symbols]

**Hazardous Material Information System HMIS**

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**Notice to Reader:**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.