1. Identification

**Product Name:** Decalcifier - Formic

**Synonyms:** N/A

**Recommended Use:** Laboratory Reagent

**Supplier:** Avantik
32 Commerce Street
Springfield, NJ 07081
(800) 783-9424

**Item #:** RS4601-B

**Restrictions on Use:** Any use other than specified.

**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>
</tr>
<tr>
<td>Select Additive</td>
<td></td>
<td>Trade Secret</td>
<td>Trade Secret</td>
</tr>
</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

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**Page 1**
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.

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

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<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>
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</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
Flammability (solid/gas): N/A
Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

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

<table>
<thead>
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<table>
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<tbody>
<tr>
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<tr>
<td>Personal Protection</td>
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</table>

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

![NFPA Hazard Symbols]

- **Fire Hazard:**
  - Health: 3
  - Reactivity: 0
- **Specific Hazard:**
  - COR

#### Hazardous Material Information System HMIS

![HMIS Hazard Symbols]

- **Health:** 3
- **Flammability:** 2
- **Physical Hazard:** 0
- **Personal Protection:**

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**Notice to Reader:**

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