

# Safety Data Sheet

## IMPREGNATING SOLUTION

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Impregnating Solution

**Catalog Numbers:** K-697-2

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H303-Acute toxicity, oral: 5

H320-Serious eye damage/eye irritation: 2B

H360-Reproductive toxicity: 1B

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

#### Hazard statements:

H303-May be harmful if swallowed

H320-Causes eye irritation

H360-May damage fertility or the unborn child

## Precautionary Statements:

P201-Obtain special instructions before use.

P202-Do not handle until all safety precautions have been read and understood.

P264-Wash thoroughly after handling.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313-If exposed or concerned: Get medical advice/attention.

P337+P313-If eye irritation persists: Get medical advice/attention.

P405-Store locked up.

P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
10043-35-3	Boric acid	0.14 w/v
1303-96-4	Sodium tetraborate decahydrate	0.17 w/v
7761-88-8	Silver nitrate	0.002 w/v
110-86-1	Pyridine	0.1 v/v
7732-18-5	Water	balance

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical advice.

**Oral Exposure:** If swallowed, seek immediate medical advice. Do NOT induce vomiting.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Borane/boron oxides, carbon oxides, sodium oxides, nitrogen oxides, silver/silver oxides, hydrogen cyanide, irritating and toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

### **Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed container in a cool, dry, and well-ventilated area. Protect from heat. Light sensitive. Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### **Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**Exposure Limits:**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Boric Acid CAS#10043-35-3	2 mg/m <sup>3</sup> TWA 6 mg/m <sup>3</sup> STEL	Not listed	Not listed
Sodium tetraborate decahydrate CAS#1303-96-4	2 mg/m <sup>3</sup> TWA 6 mg/m <sup>3</sup> STEL	5 mg/m <sup>3</sup> TWA	10 mg/m <sup>3</sup> TWA (vacated)
Silver Nitrate CAS#7761-88-8	0.01 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> IDLH	0.01 mg/m <sup>3</sup> TWA (vacated)
Pyridine CAS#110-86-1	1 ppm TWA	5 ppm TWA 15 mg/m <sup>3</sup> TWA 1000 ppm IDLH	5 ppm TWA 15 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Sodium tetraborate decahydrate: 10 mg/m<sup>3</sup> TWA  
Silver Nitrate: 0.01 mg/m<sup>3</sup> TWA  
Pyridine: 5 ppm TWA; 15 mg/m<sup>3</sup> TWA

Section 9 - Physical and Chemical Properties
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**Physical State:** Liquid**Appearance:** Clear, colorless**Odor:** Strong, foul**Vapor Pressure:** Not available**Odor threshold:** Not available**Vapor Density:** Not applicable**pH:** Not available**Relative density:** Not available**Melting point/freezing point:** Not available**Solubility:** Soluble in water**Boiling Point:** Not available**Flash point:** Not available**Evaporation Rate:** Not applicable**Flammability (solid, gas):** Not available**Partition coefficient: n-octanol/water:** Not available**Auto-ignition temperature:** Not available**Decomposition temperature:** Not available**Viscosity:** Not available**Specific Gravity/Density:** Not available

Section 10 - Stability and Reactivity
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**Chemical Stability:** Stable under normal temperatures and pressures. Light sensitive.**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat, and freezing. Exposure to air and light. Combustible material.**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong reducing agents, bases, finely powdered metals, combustible material, metals, amines, aluminum, metals, rubber, various plastics, and alkalines.**Hazardous Decomposition Products:** Borane/boron oxides, carbon oxides, sodium

oxides, nitrogen oxides, silver/silver oxides, hydrogen cyanide, irritating and toxic fumes and gases.

Section 11 - Toxicological Information
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**CAS#10043-35-3 Boric Acid: RTECS#: ED4550000**

LD50 Oral: 2660 mg/kg (rat)  
LD50 Dermal: >2000 m/kg (rabbit)  
LC50 Inhalation: Not available

**Carcinogenicity:** Boric Acid CAS#10043-35-3 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**CAS#1303-96-4 Sodium tetraborate decahydrate: RTECS#: VZ2275000**

LD50 Oral: 5660 mg/kg (rat)  
LD50 Dermal: >2000 mg/kg (rabbit)  
LC50 Inhalation: 2.03 mg/L (rat)

**Carcinogenicity:** Sodium tetraborate decahydrate CAS#1303-96-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**CAS#7761-88-8 Silver Nitrate: RTECS#: VW4725000**

LD50 Oral: >2000 mg/kg (rat)  
LD50 Dermal: >2000 mg/kg (rat)  
LC50 Inhalation: 0.075 mg/L 4h (rat)

**Carcinogenicity:** Silver Nitrate CAS#7761-88-8 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**CAS#110-86-1 Pyridine:**

LD50 Oral: 866 mg/kg (rat)  
LD50 Dermal: 1000-2000 mg/kg (rabbit)  
LC50 Inhalation: 12.898 mg/L 4h (rat)

**Carcinogenicity:** Pyridine CAS#110-86-1 is not listed by NTP or OSHA. Pyridine is listed by IARC (Group 2B, Possibly Carcinogenic to Humans), ACGIH (A3, Animal Carcinogen), and California Prop 65 as a carcinogen.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation, eye.

**Epidemiology:** Not available.

**Teratogenicity:** May cause harm to the unborn child.

**Reproductive Effects:** May cause adverse reproductive effects.

**Developmental Effects:** May cause harm to the unborn child.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Specific Target Organ Toxicity, Single Exposure:** Not available.

**Specific Target Organ Toxicity, Repeated Exposure:** Not available.

**Symptoms associated with exposure:** Inhalation of high vapor concentrations may cause headache, dizziness, tiredness, nausea, vomiting, cough, irritation, shortness of breath. Irritating to eyes. May cause irritation of respiratory tract. May be harmful if swallowed and cause burns, vomiting, nausea.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Toxic to aquatic life. May cause long-term adverse effects to the environment.

**CAS#10043-35-3 Boric Acid:**

LC50, freshwater fish: 5600 mg/L 96h (gambusia affinis)

EC50, water flea: 115-153 mg/L 48h (daphnia magna)

**CAS#1303-96-4 Sodium tetraborate decahydrate:**

LC50, freshwater fish: 340 mg/L 96h (pimephales promelas)

LC50, freshwater fish: 708 mg/L 96h (pimephales promelas)

LC50, water flea: 1085-1402 mg/L 48h

EC50, freshwater algae: 2.6-21.8 mg/L 96h

EC50, freshwater algae: 158 mg/L 96h

**CAS#7761-88-8 Silver Nitrate:**

LC50, freshwater fish: 0.029 mg/L 96h (leuciscus idus)

EC50, water flea: 0.0006 mg/L 48h

EC0, microtox: 0.038 mg/L 24h (photobacterium phosphoreum)

**CAS#110-86-1 Pyridine:**

LC50, freshwater fish: 4.6 mg/L 96h static (oncorhynchus mykiss)

LC50, freshwater fish: 26 mg/L 96h semi-static (cyprinus carpio)

LC50, freshwater fish: 63.4-73.6 mg/L 96h flow-through (pimephales promelas)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

## Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

## Section 14 – Transport Information

### **DOT**

Non-Regulated

## Section 15 - Regulatory Information

### **Canada Regulatory Information**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

## Section 16 - Additional Information

**SDS Creation Date:** 9-19-22

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