

# Safety Data Sheet

## Michel's Immunofluorescence Working Solution

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Michel's Immunofluorescence Working Solution

**Catalog Numbers:** SO-840

**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

H313-Acute toxicity, dermal: 5

H317-Sensitisation, skin: 1

55.85% of the mixture consists of ingredients of unknown acute inhalation toxicity.

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



Signal Word: Warning

#### Hazard Statements:

H303-May be harmful if swallowed

H313-May be harmful in contact with skin

H317-May cause an allergic skin reaction

## Precautionary Statements:

P261-Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272-Contaminated work clothing should not be allowed out of the workplace.  
P280-Wear protective gloves.  
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.  
P302+P312-If on skin: Call a Poison Center/doctor if you feel unwell.  
P302+P352-If on skin: Wash with plenty of soap and water.  
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364-Take off contaminated clothing and wash it before reuse.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7783-20-2	Ammonium sulfate	55 w/v
6100-05-6	Potassium citrate tribasic monohydrate	0.7 w/v
10034-99-8	Magnesium sulfate heptahydrate	0.1 w/v
128-53-0	N-Ethylmaleimide	0.05 w/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. Get medical attention.

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

**Oral Exposure:** If swallowed, get immediate medical advice. Rinse mouth with water. 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:** Carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides, magnesium oxides, 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: 1; 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. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed container. **Store in the refrigerator.** Protect from direct sunlight. 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:**

<b>Chemical Name</b>	<b>ACGIH - TLV</b>	<b>NIOSH - IDLH</b>	<b>OSHA - Final PELs</b>
Ammonium Sulfate CAS#7783-20-2	Not listed	Not listed	Not listed
Potassium Citrate Tribasic Monohydrate CAS#6100-05-6	Not listed	Not listed	Not listed
Magnesium Sulfate Heptahydrate CAS#10034-99-8	Not listed	Not listed	Not listed
N-Ethylmaleimide CAS#128-53-0	Not listed	Not listed	Not listed

Section 9 - Physical and Chemical Properties
--

**Physical State:** Liquid

**Appearance:** Clear, colorless

**Odor:** Odorless

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** 7.0-7.4

**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 available

**Flammability (solid, gas):** Not available

**Partition coefficient: n-octanol/water:** Not available

**Autoignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Specific Gravity/Density:** Not available

Section 10 - Stability and Reactivity
---------------------------------------

**Chemical Stability:** Stable under normal temperatures and pressures. **Keep refrigerated.**

**Conditions to Avoid:** Direct sunlight, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, and strong bases.

**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides, magnesium oxides, irritating and toxic fumes and gases.

## Section 11 - Toxicological Information

**CAS#7783-20-2 Ammonium Sulfate: RTECS#: BS4500000**

LD50 Oral: 2840 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

**Carcinogenicity:** Ammonium Sulfate CAS#7783-20-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**CAS#6100-05-6 Potassium Citrate Tribasic Monohydrate:**

LD50 Oral: Not available

LD50 Dermal: Not available

LC50 Inhalation: Not available

**Carcinogenicity:** Potassium Citrate Tribasic Monohydrate CAS#3100-05-6 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**CAS#10034-99-8 Magnesium Sulfate Heptahydrate: RTECS#: OM4508000**

LD50 Oral Estimate: 2500 mg/kg (calculation method)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

**Carcinogenicity:** Magnesium Sulfate Heptahydrate CAS#10034-99-8 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**CAS#128-53-0 N-Ethylmaleimide: RTECS#: UX9625000**

LD5, Oral: 25 mg/kg (rat)

LD50 Dermal: 500 mg/kg (guinea pig)

LC50 Inhalation: Not available

**Carcinogenicity:** N-Ethylmaleimide CAS#128-53-0 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

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

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Developmental Effects:** Not available.

**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:** May cause an allergic skin reaction. Symptoms of an allergic reaction may include rash, itching, swelling, difficulty breathing, tingling of hands/feet, dizziness, lightheadedness, chest pain, muscle pain, flushing. Overexposure may cause headache, dizziness, tiredness, nausea, vomiting, diarrhea.

**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 in the aquatic environment.

**CAS#7783-20-2 Ammonium Sulfate:**

LC50, freshwater fish: >460 mg/L 96h (cyprinus carpio)  
LC50, freshwater fish: 420 mg/l 96h (brachydanio rerio)  
LC50, freshwater fish: 53 mg/L 96h (oncorhynchus mykiss)(rainbow trout)  
EC50, water flea: 121.7 mg/L 48h (ceriodaphnia)  
ErC50, algae: 2700 mg/L 18days (chlorella vulgaris)  
EC50, bacteria: 1618 mg/L 30min (activated sludge)

**CAS#10034-99-8 Magnesium Sulfate Heptahydrate:**

LC50, freshwater fish: 2610-3080 mg/L 96h (pimephales promelas)(fathead minnow)  
EC50, crustacea: 149.6-191.36 mg/L 48h (tubifex tubifex)(tubificid worm)

**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:** 1-8-10

**Revision #1:** 3-1-15 RC

**Revision #2:** 7-14-20

**Revision #3:** 7-19-23

**Revision #4:** 1-5-26

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Rowley Biochemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if Rowley Biochemical, Inc. has been advised of the possibility of such damages.*