

Safety Data Sheet

Zamboni's Fixative, pH 7.3

Section 1 - Chemical Product and Company Identification

SDS Name: Zamboni's Fixative, pH 7.3

Catalog Numbers: SO-171

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

H316-Skin corrosion/irritation: 3

H317-Sensitisation, skin: 1A

H319-Serious eye damage/eye irritation: 2A

H332-Acute toxicity, inhalation: 4

H341-Germ cell mutagenicity: 2

H350-Carcinogenicity: 1B

Pictograms or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

Hazard Statements:

H316-Causes mild skin irritation

H317-May cause an allergic skin reaction

H319-Causes serious eye irritation

H332-Harmful if inhaled

H341-Suspected of causing genetic defects

H350-May cause cancer

Precautionary Statements:

P201-Obtain special instructions before use.

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

P261-Avoid breathing dust/fume/gas/mist/vapours/spray.

P264-Wash thoroughly after handling.

P271-Use only outdoors or in a well-ventilated area.

P272-Contaminated work clothing should not be allowed out of the workplace.

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

P302+P352-If on skin: Wash with plenty of soap and water.

P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.

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.

P312-Call a Poison Center/doctor if you feel unwell.

P332+P313-If skin irritation occurs: Get medical advice/attention.

P333+P313-If skin irritation or rash occurs: Get medical advice/attention.

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

P362+P364-Take off contaminated clothing and wash it before reuse.

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 |
|------------|--|---------|
| 30525-89-4 | Paraformaldehyde | 2 w/v |
| 10049-21-5 | Sodium phosphate monobasic monohydrate | 0.3 w/v |
| 7558-79-4 | Sodium phosphate dibasic | 3 w/v |
| 88-89-1 | Picric Acid | 0.4 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. Seek 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. Seek medical attention.

Oral Exposure: If swallowed, seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. Seek medical attention.

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, phosphorous oxides, sodium 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: 2; Flammability: 0; Instability: 0

Note: Picric acid can explode on contact when dry. Do not allow this material to dry out. Do not let dry picric acid (crystals) form in container or on the cap threads of the container. A severe explosion hazard when shocked or exposed to heat. Dried out picric acid may explode if exposed to heat, flame, friction, or shock. May form shock-sensitive mixtures on contact with metals. Can violently decompose at elevated temperatures.

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. Take precautionary measures against static discharges. Eliminate all ignition sources. Do not touch, walk through, or scatter spilled material.

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. Keep away from incompatible materials. Take precautionary measures against static discharges. Eliminate all ignition sources.

Note: Picric acid can explode on contact when dry. Do not allow this material to dry out. Do not let dry picric acid (crystals) form in container or on the cap threads of the container. A severe explosion hazard when shocked or exposed to heat. Dried out picric acid may explode if exposed to heat, flame, friction, or shock. May form shock-sensitive mixtures on

contact with metals. Can violently decompose at elevated temperatures.

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 - TLV | NIOSH - IDLH | OSHA - Final PELs |
|---|---------------|---------------------------------|-------------------|
| Paraformaldehyde CAS#30525-89-4 | Not listed | Not listed | Not listed |
| Sodium phosphate monobasic monohydrate CAS#10049-21-5 | Not listed | Not listed | Not listed |
| Sodium phosphate dibasic CAS#7558-79-4 | Not listed | Not listed | Not listed |
| Picric Acid CAS#88-89-1 | 0.1 mg/m3 TWA | 0.1 mg/m3 TWA 0.3 mg/m3 STEL | 0.1 mg/m3 TWA |

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Yellow

Odor: Pungent

Vapor Pressure: Not available

Odor Threshold: Not available

Vapor Density: Not available

pH: Approx. 7.3

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 applicable
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.

Conditions to Avoid: Incompatible materials, ignition sources, and excess heat. An explosive mixture may result when an aqueous solution containing picric acid crystallizes. Do not let dry picric acid form in container or on the cap threads of container. Do not allow to dry out. Picric acid forms salts with many metals which are sensitive to heat, friction, or impact.

Incompatibilities with Other Materials: Oxidizing agents, reducing agents, bases, strong acids, metals, alkalis, copper, lead, nickel, zinc, heavy metal salts, ammonia, amines, iron, various alloys, and concrete.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, phosphorous oxides, sodium oxides, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#30525-89-4 Paraformaldehyde: RTECS#: RV0540000

LD50 Oral: 800 mg/kg (rat)

LD50 Dermal: 10000 mg/kg (rabbit)

LC50 Inhalation: 1.07 mg/L 4h (rat)

Carcinogenicity: Paraformaldehyde CAS#30525-89-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#10049-21-5 Sodium phosphate monobasic monohydrate:

LD50 Oral: 8290 mg/kg (rat)

LD50 Dermal: >7940 mg/kg (rabbit)

LC50 Inhalation: >0.83 mg/L 4h (rat)

Carcinogenicity: Sodium phosphate monobasic monohydrate CAS#10049-21-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#7558-79-4 Sodium phosphate dibasic: RTECS#: WC4500000

LD50 Oral: 17 g/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: >0.83 mg/L 4h (rat)

Carcinogenicity: Sodium phosphate dibasic CAS#7558-79-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#88-89-1 Picric Acid: RTECS#: TJ7875000

LD50 Oral: 200 mg/kg (rat)

LD50 Dermal: 461.54 mg/kg (estimate, calculation method)

LC50 Inhalation: 0.7708 mg/L 4h (estimate, calculation method)

May cause skin sensitization.

Carcinogenicity: Picric Acid CAS#88-89-1 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: Causes serious eye irritation. Causes mild skin irritation. May cause an allergic skin reaction. Overexposure due to inhalation may cause headache, dizziness, tiredness, nausea, vomiting. Symptoms of an allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands/feet, dizziness, lightheadedness, chest pain, muscle pain, flushing. Overexposure may cause liver irregularities. Skin exposure may cause itching, rash, hives, redness, burning sensation. Eye exposure may cause redness, tearing, pain.

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

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| Section 12 - Ecological Information |
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Ecotoxicity: Do not release to the environment. Do not release to drains.

CAS#30525-89-4 Paraformaldehyde:

LC50, freshwater fish: 46-78 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

EC50, water flea: 42 mg/L 24h (daphnia magna)

CAS#7558-79-4 Sodium phosphate dibasic:

LC50, freshwater fish: >100 mg/L 96h semi-static (Oncorhynchus mykiss)(rainbow trout)

EC50, water flea: >100 mg/L 48h static (daphnia magna)

ErC50, algae: >100 mg/L 72h static (desmodesmus subspicatus)(green algae)

EC50, bacteria: >1000 mg/L 3h static (activated sludge)

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

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

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| Section 13 - Disposal Considerations |
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DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

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| Section 14 – Transport Information |
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DOT

Non-Regulated

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| Section 15 - Regulatory Information |
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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.

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| Section 16 - Additional Information |
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SDS Creation Date: 2-27-19

Revision #1. 5-1-23

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