

# Safety Data Sheet

## Picric Acid, Saturated, Aqueous

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Picric Acid, Saturated, Aqueous

**Catalog Numbers:** SO-128, A-107-4, C-200-2, J-608-2, N-853-5

**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

H314-Skin corrosion/irritation: 1A

H317-Sensitisation, skin: 1A

H318-Serious eye damage/eye irritation: 1

#### Pictograms or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

#### Hazard Statements:

H314-Causes severe skin burns and eye damage

H317-May cause an allergic skin reaction

H318-Causes serious eye damage

#### Precautionary Statements:

P260-Do not breathe dusts or mists.

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

P264-Wash thoroughly after handling.  
 P272-Contaminated work clothing should not be allowed out of the workplace.  
 P280-Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.  
 P302+P352-If on skin: Wash with plenty of soap and water.  
 P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 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.  
 P310-Immediately call a Poison Center/doctor.  
 P333+P313-If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364-Take off contaminated clothing and wash it before reuse.  
 P363-Wash contaminated clothing 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
88-89-1	Picric Acid	2.4 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. Do NOT induce vomiting. Rinse mouth with water.

**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. Do not scatter spilled material with high pressure water streams.

**Hazardous Combustion Products:** Carbon oxides, nitrogen 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 at room temperature. Keep away from incompatible materials. Take precautionary measures against static discharges. Eliminate all ignition sources. Use spark-proof tools and explosion-proof equipment.

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## 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
Picric Acid CAS#88-89-1	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA 0.3 mg/m <sup>3</sup> STEL	0.1 mg/m <sup>3</sup> TWA

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Yellow

**Odor:** Odorless

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** Approx. 1.4

**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 applicable

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

**Auto-ignition 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, excess heat, sparks, flame, and freezing. An explosive mixture results when the aqueous solution crystallizes. Do not let dry picric acid (crystals) form in container or on the cap threads of container. Dry picric acid is explosive. 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, concrete.

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

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 11 - Toxicological Information
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**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 (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:** Corrosive material. Picric acid causes skin irritation and it may be absorbed through the skin. May cause itching, rashes, hives, redness, burning sensation. Picric acid has been shown to cause symptoms when absorbed through the skin; like those when ingested. Will cause eye irritation and may result in corneal injury leading to blindness. If swallowed, may cause gastrointestinal tract irritation with abdominal pain, nausea, vomiting, diarrhea, dizziness, headache, and stomach irregularities. May affect behavior/central nervous system (vertigo, headache, stupor, tremor, convulsions), cardiovascular system, metabolism, kidneys/urinary system (anuria, oliguria, renal lesions, hemorrhagic nephritis), liver (acute hepatitis, jaundice). Prolonged or repeated skin contact may cause allergic or sensitization dermatitis. May cause conjunctivitis in the eyes and yellow staining of the skin and eyes. This is also called "yellow vision". May cause redness and tearing of the eyes. May effect liver, kidney, eyes, skin, blood, central nervous system, cardiovascular system.

**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.

**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

Proper shipping name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Picric Acid Solution)  
UN3264

PG II

Hazard class 8

## 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:** 10/15/12

**Revision #1:** CF 7/11/14

**Revision #2:** 8-29-18

**Revision #3:** 12-20-21

**Revision #4:** 8-25-22

**Revision #5:** 1-3-23

**Revision #6:** 1-5-26

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