

Safety Data Sheet

Buffered Acetone Fixative

Section 1 - Chemical Product and Company Identification

SDS Name: Buffered Acetone Fixative

Catalog Numbers: SO-677, F-3, O-913-1

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 Category

H225-Flammable liquids: 2

H316-Skin corrosion/irritation: 3

H319-Serious eye damage/eye irritation: 2A

H336-Specific target organ toxicity, single exposure: 3

H373-Specific target organ toxicity, repeated exposure: 2

Pictogram or Hazard Symbols and Hazard Statement(s):



Signal word: Danger

Hazard Statements:

H225-Highly flammable liquid and vapour

H316-Causes mild skin irritation

H319-Causes serious eye irritation

H336-May cause drowsiness or dizziness

H373-May cause damage to organs through prolonged or repeated exposure (target organs: kidney, liver, spleen, and blood)

Precautionary Statements:

P210-Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P233-Keep container tightly closed.

P240-Ground and bond container and receiving equipment.

P241-Use explosion-proof electrical/ventilating/lighting equipment.

P242-Use non-sparking tools.

P243-Take action to prevent static discharges.

P260-Do not breathe dust/fume/gas/mist/vapours/spray.

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

P264-Wash thoroughly after handling.

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

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

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.

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

P314-Get medical advice/attention if you feel unwell.

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

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

P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam to extinguish.

P403+P233-Store in a well-ventilated place. Keep container tightly closed.

P403+P235-Store in a well-ventilated place. Keep cool.

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
5949-29-1	Citric Acid Monohydrate	0.19 w/v
6132-04-3	Sodium Citrate Dihydrate	0.06 w/v
67-64-1	Acetone	60 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. Seek immediate 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 and drink small quantities of water (stop if the exposed person feels sick as vomiting may be dangerous). Never give anything by mouth to an unconscious person.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Seek immediate medical attention. Inhalation of vapors irritates the respiratory tract. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea, and vomiting.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed unopened containers. Do NOT use straight streams of water.

Hazardous Combustion Products: Carbon oxides, sodium oxides, formaldehyde, methanol, 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: 3; Instability: 0

NOTE: Static discharge could act as an ignition source.

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. Keep away from heat. Eliminate all sources of ignition. Take precautionary measures against static discharge.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. 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 get in eyes, on skin, or on clothing. Do not ingest. Do not inhale vapors. Keep in a tightly closed container. Store away from direct sunlight. **Store in the refrigerator (4°C).** Keep away from incompatible materials, ignition sources, or open flame. Protect from heat. Use only non-sparking tools. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

NOTE: Static discharge could act as an ignition source.

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
Citric Acid Monohydrate CAS#5949-29-1	Not listed	Not listed	Not listed
Sodium Citrate Dihydrate CAS#6132-04-03	Not listed	Not listed	Not listed
Acetone CAS#67-64-1	250 ppm TWA 500 ppm STEL	250 ppm TWA 590 mg/m ³ TWA 2500 ppm IDLH	1000 ppm TWA 2400 mg/m ³ TWA

OSHA Vacated PELs: Acetone: 750 ppm TWA; 1800 mg/m³ TWA; 2400 mg/m³ STEL; 1000 ppm STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear, colorless
Odor: Acetone-like. Ethereal.
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: Approx. 3.5-4.9
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Miscible 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 handling and storage conditions. **Keep refrigerated (4 °C).**
Conditions to Avoid: Incompatible materials, heat, flame, and sparks. Keep away from direct sunlight, open flames, hot surfaces, and sources of ignition.
Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents, strong bases, peroxides, halogenated compounds, alkali metals, amines, rubber, various plastics, metals, acids, and phosphorous oxychloride.
Hazardous Decomposition Products: Carbon oxides, sodium oxides, formaldehyde, methanol, irritating and toxic fumes and gases.

Note: Static discharge could act as an ignition source.

Section 11 - Toxicological Information
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CAS#5949-29-1 Citric Acid Monohydrate: RTECS#: GE7810000

LD50 Oral: 5.79 g/kg (mouse)
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Citric Acid Monohydrate CAS#5949-29-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#6132-04-03 Sodium Citrate Dihydrate:

LD50 Oral: 5400 mg/kg (mouse)
LD50 Dermal: >2000 mg/kg (rat)
LC50 Inhalation: Not available

Carcinogenicity: Sodium Citrate Dihydrate CAS#6132-04-03 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#67-64-1 Acetone: RTECS#: AL3150000

LD50 Oral: 5,800 mg/kg (rat)

LD50 Dermal: >15800 mg/kg (rabbit)

LC50 Inhalation: 76 mg/L 4h vapor (rat)

Carcinogenicity: Acetone CAS#67-64-1 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: Respiratory system and central nervous system.

Specific Target Organ Toxicity, Repeated Exposure: Kidney, liver, spleen, and blood.

Symptoms associated with exposure: Overexposure may cause headache, salivation, nausea, vomiting, tiredness, and dizziness. May cause pulmonary edema. Causes serious eye irritation. Causes mild skin irritation. May cause dermatitis. May cause drowsiness or dizziness. May cause kidney irregularities.

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.

CAS#67-64-1 Acetone:

LC50, freshwater fish: 5540 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

LC50, freshwater fish: 1100 mg/L 96h (albumus alburnus)

LC50, freshwater fish: 11300 mg/L 96h (leuciscus idus)(golden orfe)

LC50, freshwater fish: 6100 mg/L 24h (salmo gairdneri)

EC50, water flea: 8800 mg/L 48h (daphnia magna)

Persistence and degradability: Persistence is unlikely.

Bio-accumulative potential: Not available.

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

Section 13 - Disposal Considerations

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

Section 14 – Transport Information

DOT

Proper shipping name: Acetone

UN1090

PG II

Hazard class 3 (flammable)

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: May 11, 2012

Revision #1. 6/8/15 RC

Revision #2. 7/19/16 RC

Revision #3. 10-11-23

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