Safety Data Sheet

GOMORI'S TRICHROME STAIN WITH FAST GREEN

Section 1 - Chemical Product and Company Identification

SDS Name: Gomori's Trichrome Stain with Fast Green
Catalog Numbers: SO-795
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

H315-Skin corrosion/irritation: 2
H319-Serious eye damage/eye irritation: 2A

0.6% of the mixture consists of ingredients of unknown acute oral toxicity.
1.7% of the mixture consists of ingredients of unknown acute dermal and inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):

Signal Word: Warning

Hazard Statements:

H315-Causes skin irritation
H319-Causes serious eye irritation

Precautionary Statements:

P264-Wash thoroughly after handling.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352-If on skin: Wash with plenty of soap and water.
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313-If skin irritation occurs: Get medical advice/attention.
P337+P313-If eye irritation persists: Get medical advice/attention.
P362-Take off contaminated clothing and wash before reuse.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
4197-07-3	Chromotrope 2R	0.6 w/v
2353-45-9	Fast Green FCF	0.3 w/v
12501-23-4	Phosphotungstic Acid Hydrate	0.8 w/v
64-19-7	Glacial Acetic Acid	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. 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.

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, sodium oxides, phosphorus oxides, phosphorus trihydride (phosphine), 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 away from incompatible materials. **Store in a tightly closed container in the refrigerator.**

Note: Acetic acid is extremely destructive to all body tissue. In concentrated form (glacial acetic acid), it is corrosive and flammable. Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur. Ingestion of concentrated acetic acid causes severe swelling, severe damage to the tissue and danger or perforation. Contact with concentrated acetic acid may cause serious damage to the skin. Eye contact with concentrated acetic acid may cause severe eye damage followed by loss of sight. Exposure to vapor may cause intense watering and irritation to eyes.

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
Chromotype 2R CAS#4197-07-3	Not listed	Not listed	Not listed
Fast Green FCF CAS#2353-45-9	Not listed	Not listed	Not listed
Phosphotungstic Acid Hydrate CAS#12501-23-4	3 mg/m3 TWA	5 mg/m3 TWA 10 mg/m3 STEL	5 mg/m3 TWA (vacated) 10 mg/m3 STEL (vacated)
Glacial Acetic Acid CAS#64-19-7	10 ppm TWA 15 ppm STEL	10 ppm TWA 25 mg/m3 TWA 15 ppm STEL 37 mg/m3 STEL 50 ppm IDLH	10 ppm TWA 25 mg/m3 TWA

OSHA Vacated PELs: Glacial Acetic Acid: 10 ppm TWA; 25 mg/m3 TWA
Phosphotungstic Acid Hydrate: 5 mg/m3 TWA; 10 mg/m3 STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Dark purple
Odor: Vinegar-like (slight)
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: Approx. 2.3-2.4
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
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 handling and storage conditions. **Keep refrigerated.**
Conditions to Avoid: Incompatible materials, excess heat, hot surfaces, ignition sources, and freezing.
Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, reducing agents, metals, acids, chromic acid, ethylene glycol, perchloric acid, nitric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, carbonates, hydroxides, oxides, and phosphates.
Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, phosphorus oxides, phosphorus trihydride (phosphine), irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#4197-07-3 Chromotype 2R: RTECS#: QJ6418000
LD50 Oral: Not available
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Chromotype 2R CAS#4197-07-3 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#2353-45-9 Fast Green FCF: RTECS#: BQ4425000
LD50 Oral: >2 g/kg (rat)
LD50 Dermal: Not available
LC50 Inhalation: Not available
Note: Tumorigen, mutagen by RTECS.

Carcinogenicity: Fast Green FCF CAS#2353-45-9 is not listed by NTP, ACGIH, OSHA, or California Prop 65. Fast Green FCF is listed by IARC (Group 3, Not classifiable as to its carcinogenicity to humans).

CAS#12501-23-4 Phosphotungstic Acid Hydrate:
LD50 Oral: 300-2000 mg/kg (rat)
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Phosphotungstic Acid Hydrate CAS#12501-23-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#64-19-7 Glacial Acetic Acid: RTECS#: AF1225000
LD50 Oral: 3310 mg/kg (rat)
LD50 Dermal: 1060 mg/kg (rabbit)
LC50 Inhalation: 11.4 mg/L (rat) 4h
Investigated as a mutagen, reproductive effecter.
Skin corrosion/irritation: skin (rabbit), causes severe burns
Serious eye damage/eye irritation: eyes (rabbit), corrosive to eyes, causes serious eye damage

Carcinogenicity: Glacial Acetic Acid CAS#64-19-7 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

Note: Acetic acid is extremely destructive to all body tissue. In concentrated form (glacial acetic acid), it is corrosive and flammable. Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur. Ingestion of concentrated acetic acid causes severe swelling, severe damage to the tissue and danger or perforation. Contact with concentrated acetic acid may cause serious damage to the skin. Eye contact with concentrated acetic acid may cause severe eye damage followed by loss of sight. Exposure to vapor may cause intense watering and irritation to eyes.

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.

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. Harmful to aquatic life.

CAS#12501-23-4 Phosphotungstic Acid Hydrate:
EC50, water flea: 70.8 mg/L 48h (daphnia magna)
ErC50, algae: 7.8 mg/L 72h (pseudokirchneriella subcapitata)(green algae)
EC50, bacteria: >1000 mg/L 3h (activated sludge)

CAS#64-19-7 Glacial Acetic Acid:
LC50, freshwater fish: 88 mg/L 96h (pimephales promelas)
LC50, freshwater fish: 75 mg/L 96h (lepomis macrochirus)

EC50, water flea: 95 mg/L 24h
EC50, microtox: 8.8 mg/L 5min (photobacterium phosphoreum)

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: 10/15/12
Revision #1. RC 11-3-14
Revision #2. RCC 3-6-17
Revision #3. 7-20-20
Revision #4. 8-9-22

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