Safety Data Sheet
GOMORI'S CHROMIUM HEMATOXYLIN

Section 1 - Chemical Product and Company Identification

SDS Name: Gomori's Chromium Hematoxylin
Catalog Numbers: SO-107, F-383-3
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

H303-Acute toxicity, oral: 5
H315-Skin corrosion/irritation: 2
H317-Sensitisation, skin: 1
H319-Serious eye damage/eye irritation: 2A
H332-Acute toxicity, inhalation: 4
H334-Sensitisation, respiratory: 1
H335-Specifc target organ toxicity, single exposure; Respiratory tract irritation: 3
H340-Germ cell mutagenicity: 1B
H350-Carcinogenicity: 1A
H360-Reproducitve toxicity: 1B
H373-Specific target organ toxicity, repeated exposure: 2

Pictogram or Hazard Symbols and Hazard Statement(s):

Signal word: Danger

Hazard Statements:

H303-May be harmful if swallowed
H315-Causes skin irritation
H317-May cause an allergic skin reaction
H319-Causes serious eye irritation
H332-Harmful if inhaled
H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335-May cause respiratory irritation
H340-May cause genetic defects
H350-May cause cancer
H360-May damage fertility or the unborn child
H373-May cause damage to organs through prolonged or repeated exposure (Respiratory system, cardiovascular system, kidney, liver, and blood)

Precautionary Statements:

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
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.
P272-Contaminated work clothing should not be allowed out of the workplace.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P281-Use personal protective equipment as required.
P285-In case of inadequate ventilation wear respiratory protection.
P302+P352-If on skin: Wash with plenty of soap and water.
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+P341-If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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 or doctor/physician if you feel unwell.
P314-Get medical advice/attention 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.
P342+P311-If experiencing respiratory symptoms: Call a Poison Center or doctor/physician.
P362-Take off contaminated clothing and wash before reuse.
P363-Wash contaminated clothing before reuse.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
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
7788-99-0	Chromium(III) Potassium Sulfate Dodecahydrate	1.5 w/v
517-28-2	Hematoxylin	0.5 w/w
7778-50-9	Potassium Dichromate	<0.10 w/v
7664-93-9	Sulfuric Acid	<0.03 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 advice.

Oral Exposure: If swallowed, seek immediate medical advice. Do NOT induce vomiting. Rinse mouth with water and then drink water.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek immediate 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, or alcohol-resistant foam.

Hazardous Combustion Products: Carbon oxides, chromium oxides, potassium oxides, sulfur oxides, hydrogen, irritating toxic fumes and gases.

Flash Point: Not available
Auto ignition Temperature: Not available
Explosion Limits, Lower: Not available
Upper: Not available
NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

Note: Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should be kept away from flammables or combustibles.

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.

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. Use only under a chemical hood. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest. Do not breathe vapors/mist. Store in a tightly closed container at room temperature. Keep away from incompatible materials. Keep away from clothing and other combustible materials. Note: this material is **light sensitive**.

Note: Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should kept away from flammables or combustibles.

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	NIOSH	OSHA - Final PELs
Chromium (III) Potassium Sulfate CAS#7788-99-0	Not listed	0.5 mg/m3 TWA 25 mg/m3 IDLH	Not listed
Hematoxylin CAS#517-28-2	Not listed	Not listed	Not listed
Potassium Dichromate CAS#7778-50-9	0.0002 mg/m3 TWA 0.0005 mg/m3 Skin STEL	0.0002 mg/m3 TWA 15 mg/m3 IDLH	0.1 mg/m3 Ceiling
Sulfuric Acid CAS#7664-93-9	0.2 mg/m3 TWA	1 mg/m3 TWA 15 mg/m3 IDLH	1 mg/m3 TWA

OSHA Vacated PELs: Chromium (III) Potassium Sulfate: 0.5 mg/m3 TWA
Potassium Dichromate: 0.1 mg/m3 Ceiling
Sulfuric Acid: 1 mg/m3 TWA

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Dark maroon
Odor: Odorless
Vapor Pressure: Not available
Odor threshold: Not available
Vapor Density: Not available
pH: approx. 3.6
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
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, and freezing. Avoid exposure to light.
Incompatibilities with Other Materials: Strong oxidizing agents, reducing agents, strong bases, strong acids, acid anhydrides, organic materials, finely powdered metals, peroxides, and combustible material.

Hazardous Decomposition Products: Carbon oxides, chromium oxides, potassium oxides, sulfur oxides, hydrogen, irritating toxic fumes and gases.

Note: Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should be kept away from flammables or combustibles.

Section 11 - Toxicological Information

CAS#7788-99-0 Chromium (III) Potassium Sulfate: RTECS#: GB6850000
LD50 Oral: 3530 mg/kg (rat)
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Chromium (III) Potassium Sulfate CAS#7788-99-0 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#517-28-2 Hematoxylin: RTECS#: MH7875000
LD50 Oral: >2000 mg/kg (rat)
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Hematoxylin CAS#517-28-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#7778-50-9 Potassium Dichromate: RTECS#: HX7680000
LD50 Oral: 90.5 mg/kg (rat)
LD50 Dermal: 1150 mg/kg (rabbit)
LC50 Inhalation: 0.09 mg/L 4h (rat)

Carcinogenicity: Potassium Dichromate CAS#7778-50-9 is not listed by OSHA. Potassium Dichromate is listed by IARC (Group 1, Carcinogenic to Humans), NTP (Known Carcinogen), ACGIH (A1, Known Human Carcinogen), and California Prop. 65 as a developmental carcinogen (female and male reproductive).

CAS#7664-93-9 Sulfuric Acid: RTECS#: WS5600000
LD50 Oral: 2140 mg/kg (rat)
LD50 Dermal: Not available
LC50 Inhalation: 0.375 mg/L 4h (rat)

Carcinogenicity: Sulfuric Acid CAS#7664-93-9 is not listed by OSHA. Sulfuric Acid is listed by IARC (Group 1, Carcinogenic to Humans), NTP (Known Carcinogen), ACGIH (A2, Suspected Human Carcinogen), and California Prop. 65 as a carcinogen.

Epidemiology: Not available
Teratogenicity: May cause harm to the unborn child.
Reproductive Effects: May impair fertility.

Developmental Effects: Component substance is listed on California Prop. 65 as a developmental hazard.
Neurotoxicity: Not available
Mutagenicity: May cause heritable genetic damage.
Specific Target Organ Toxicity, Single Exposure: Not available
Specific Target Organ Toxicity, Repeated Exposure: Respiratory system, cardiovascular system, kidney, liver, and blood.

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. Very toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

CAS#7788-99-0 Chromium (III) Potassium Sulfate:
EC50, microtox: 10.7 mg/L 5min as Cr3+ (photobacterium phosphoreum)

CAS#517-28-2 Hematoxylin:
LC50, freshwater fish: >35 mg/L 96h (oncorhynchus mykiss)
EC50, freshwater algae: >100 mg/L 7days (lemna minor)
EC50, water flea: 29.7 mg/L 48h (daphnia magna)

CAS#7778-50-9 Potassium Dichromate:
LC50, freshwater fish: 14-20.9 mg/L 96h (pimephales promelas)
LC50, freshwater fish: 24.81-34.55 mg/L 96h semi-static (poecilia reticulata)
LC50, freshwater fish: 23-41.2 96h static (poecilia reticulata)
LC50, freshwater fish: 15.41-30.36 mg/L 96h flow-through (pimephales promelas)
LC50, freshwater fish: >139 mg/L 96h static (cyprinus carpio)
LC50, freshwater fish: 113.6-155.7 mg/L 96h flow-through (lepomis macrochirus)
LC50, freshwater fish: 320 mg/L 96h (lepomis macrochirus)
LC50, freshwater fish: 65.6-137.6 mg/L 96h static (lepomis macrochirus)
LC50, freshwater fish: 12.3 mg/L 96h semi-static (oncorhynchus mykiss)
LC50, freshwater fish: 21.209-30.046 mg/L 96h semi-static (oryzias latipes)
EC50, water flea: 1.4 mg/L 24h

CAS#7664-939 Sulfuric Acid:
LC50, freshwater fish: >500 mg/L 96h static (brachydanio rerio)
EC50, water flea: 29 mg/L 24h

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. 3-2-15 RC
Revision #2. 3-5-20
Revision #3. 5-9-22

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