



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Gomori Trichrome Stain	Product Code	623
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	7/12/2004
		Print Date	7/12/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym None.

Material Uses Laboratory Reagent

Chemical Family Dye Solution

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Chromotrope 2R	4197-07-3	<1
Acetic Acid	64-19-7	1
Fast Green FCF	2353-45-9	0.3
Phosphotungstic Acid	12501-23-4	<1
Water	7732-18-5	>96

+ Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview WARNING !
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

Routes of Entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Skin Hazardous in case of skin contact (permeator, irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Hazardous in case of inhalation (lung irritant).

Ingestion Hazardous in case of ingestion.

Potential Chronic Health Effects

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Carcinogenic Effects Classified 3 by IARC(Fast Green FCF)

Additional information See Toxicological Information (section 11)

**Medical Conditions
Aggravated by
Overexposure:**

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

**Flammability of the
Product**

Non-flammable.

**Auto-ignition
Temperature**

Not applicable.

Flash Points

Not applicable.

Flammable Limits

Not applicable.

Products of Combustion

Not applicable.

**Fire Hazards in Presence
of Various Substances**

Not applicable.

**Explosion Hazards in
Presence of Various
Substances**

Risks of explosion of the product in presence of static discharge: No.

Risks of explosion of the product in presence of mechanical impact: No.

**Fire Fighting Media
and Instructions**

Use DRY chemicals, CO2, water spray or foam.

Protective Clothing (Fire)

Wear suitable protective clothing.

**Special Remarks on Fire
Hazards**

When heated to decomposition it emits highly toxic fumes.

**Special Remarks on
Explosion Hazards**

Thermal decomposition may release toxic and/or hazardous gases.

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.
Large Spill and Leak	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	The following EMD Chemicals Inc. SpillSolv (TM) absorbent is recommended for this product: SX1310 Acid Treatment Kit

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between 15 to 30°C (59 to 86°F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
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Personal Protection

Eyes Face shield.

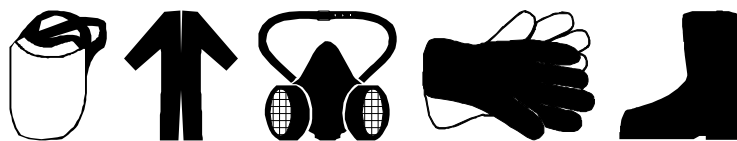
Body Full suit.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hands Gloves.

Feet Boots.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Chromotrope 2R
Acetic Acid

Exposure Limits

Not available.
80/1107/EEC (Europe, 1998).
 TWA: 25 mg/m³
 TWA: 10 ppm
INRS (France, 1999).
 VLE: 25 mg/m³
 VLE: 10 ppm
NIOSH REL (United States, 2000).
 STEL: 37 mg/m³
 STEL: 15 ppm
 TWA: 25 mg/m³ Period: 10 hour(s).
 TWA: 10 ppm Period: 10 hour(s).
OSHA Final Rule (United States, 1989).
 TWA: 25 mg/m³

TWA: 10 ppm

AUVA (Austria, 1995).

Spitzenbegrenzung: 50 mg/m³ 8 times per shift, Period: 5 minute(s).

Spitzenbegrenzung: 20 ML/M3 8 times per shift, Period: 5 minute(s).

TWA: 25 mg/m³

TWA: 10 ML/M3

NOHSC (Australia, 1995).

STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

Lijst Grenswaarden (Belgium, 1998).

VCD: 38 mg/m³

VCD: 15 ppm

VL: 25 mg/m³

VL: 10 ppm

SUVA (Switzerland, 1997).

Momentanwert: 50 mg/m³ 8 times per shift, Period: 5 minute(s).

Momentanwert: 20 ML/M3 8 times per shift, Period: 5 minute(s).

MAK: 25 mg/m³ 8 times per shift, Period: 5 minute(s).

MAK: 10 ML/M3 8 times per shift, Period: 5 minute(s).

Ministry of Health (CL, 1992).

CEIL: 37 mg/m³

TWA: 20 mg/m³

TWA: 8 ppm

MAK-Werte Liste (Germany, 1998).

Spitzenbegrenzung: 50 mg/m³ 8 times per shift, Period: 5 minute(s).

Spitzenbegrenzung: 20 ML/M3 8 times per shift, Period: 5 minute(s).

MAK: 25 mg/m³

MAK: 10 ML/M3

TRGS900 (Germany, 1999).

Spitzenbegrenzung: 25 mg/m³

Spitzenbegrenzung: 10 ML/M3

MAK: 25 mg/m³

MAK: 10 ML/M3

Arbejdstilsynet (Denmark, 1996).

GV: 25 mg/m³

GV: 10 ppm

Tyterveyslaitos (Finland, 1998).

STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

EH40-OES (United Kingdom (UK), 2000).

STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

NAOSH (Ireland, 1999).

STEL: 37 mg/m³

STEL: 15 ppm

OEL: 25 mg/m³

OEL: 10 ppm

JSOH (Japan, 1996).

TWA: 25 mg/m³

TWA: 10 ppm

Ministry of Labour (KR, 1997).

STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

Secretary of Work and Social security (MX, 1994).

CCT: 37 mg/m³ Period: 15 minute(s).

CCT: 15 ppm Period: 15 minute(s).

CPT: 25 mg/m³ Period: 8 hour(s).

CPT: 10 ppm Period: 8 hour(s).

Nationale MAC-lijst (Netherlands, 2000).TGG 8 uur: 25 mg/m³

TGG 8 uur: 10 ppm

Arbeidstilsynet (Norway, 1996).AN: 25 mg/m³

AN: 10 ppm

NZ OSH (NZ, 1994).STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

AFS (Sweden, 1996).TGV: 25 mg/m³

TGV: 10 ppm

NGV: 13 mg/m³

NGV: 5 ppm

ACGIH TLV (United States, 2000).STEL: 37 mg/m³

STEL: 15 ppm

TWA: 25 mg/m³

TWA: 10 ppm

Fast Green FCF
Phosphotungstic Acid
Water

Not available.

Not available.

Not available.

Section 9. Physical and Chemical Properties

Odor	Nearly Odorless
Color	Dark Green or Maroon solution
Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	Acidic.
Boiling/Condensation Point	The lowest known value is 99.9°C (211.8°F) (Water). Weighted average: 100.08°C (212.1°F)
Melting/Freezing Point	May start to solidify at 16.72°C (62.1°F) based on data for: Acetic acid.. Weighted average: 0.07°C (32.1°F)
Specific Gravity	The only known value is 1.051 (Water = 1) (Acetic acid.).
Vapor Pressure	Not available.
Vapor Density	The highest known value is 2.1 (Air = 1) (Acetic acid.).
Odor Threshold	Not available.
Evaporation Rate	The highest known value is 1.34 (Acetic Acid) Weighted average: 0.37 compared to (n-Butyl Acetate = 1)
LogK_{ow}	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Hygroscopic; keep container tightly closed.(Fast Green FCF)
Incompatibility with Various Substances	Highly reactive with oxidizing agents.
Rem/Incompatibility	Extreme heat
Hazardous Decomposition Products	NO _x , SO _x
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Chromotrope 2R	QJ6418000
	Acetic Acid	AF1225000
	Fast Green FCF	BQ4425000
	Phosphotungstic Acid	Not available.
	Water	ZC0110000
Toxicity	Acute oral toxicity (LD ₅₀): 3310 mg/kg [Rat]. (Acetic acid.).	
Chronic Effects on Humans	Not available.	
Acute Effects on Humans	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (permeator, irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation (lung irritant). Hazardous in case of ingestion.	
Special Remarks on Other Toxic Effects on Humans	Material is irritating to mucous membranes and upper respiratory tract.	
Synergetic Products (Toxicologically)	Not available.	
Irritancy	Draize Test: Not available.	
Sensitization	Not available.	
Carcinogenic Effects	Classified 3 by IARC(Fast Green FCF)	
Toxicity to Reproductive System	Not available.	
Teratogenic Effects	Not available.	
Mutagenic Effects	Not available.	

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number	D002
Treatment	Specified Technology - Neutralize to pH 6-9. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. ALWAYS CONTACT PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

Section 14. Transport Information

DOT Classification	Not available.
TDG Classification	Not available.
IMO/IMDG Classification	Not available.
ICAO/IATA Classification	Not available.

+ Section 15. Regulatory Information

U.S. Federal Regulations	TSCA 8(b) inventory: Acetic Acid; Fast Green FCF; Phosphotungstic Acid; Water SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Acetic Acid; Fast Green FCF SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Fast Green FCF: Delayed (Chronic) Health Hazard SARA 313 toxic chemical notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: Acetic acid. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
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WHMIS (Canada)	Class D-2A: Material causing other toxic effects (VERY TOXIC). CEPA DSL: Acetic Acid; Fast Green FCF; Water This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.
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International Regulations

EINECS	Chromotrope 2R	224-085-0
	Acetic Acid	200-580-7
	Fast Green FCF	219-091-5
	Phosphotungstic Acid	Not available.
	Water	231-791-2

DSCL (EEC)	R36/38- Irritating to eyes and skin.
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International Lists	Australia (NICNAS): Chromotrope 2R; Acetic acid.; Fast Green FCF; Phosphotungstic Acid; Water China: Fast Green FCF Germany water class: Acetic acid. Japan (MITI): Acetic acid.; Phosphotungstic Acid; Water Korea (TCCL): Acetic acid.; Water
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Philippines (RA6969): Acetic acid.; Fast Green FCF; Water
China: Fast Green FCF

State Regulations

Pennsylvania RTK: Acetic acid.: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Acetic acid.
New Jersey: Gomori Trichrome Stain
California prop. 65: No products were found.

Section 16. Other Information

**National Fire
Protection
Association
(U.S.A.)**



**Changed Since Last
Revision**

**Notice to Reader**

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.