

## Safety Data Sheet

### 1. IDENTIFICATION

**Product Identifier:** Wheatley's Trichrome Stain

**Product Code(s):** W1000

**Synonyms:** Mixture.

**Recommended Use:** For manufacturing, industrial, and laboratory use only. Use as a laboratory reagent.

**Uses Advised Against:** Not for food, drug, or household use.

**Supplier:** Rocky Mountain Reagents, Inc.  
4621 Technology Drive, Golden, CO 80403  
Phone: (303) 762-0800 Fax: (303) 762-1240

**Emergency Phone Number:** For health emergency, call poison control: (800) 222-1222.

### 2. HAZARDS IDENTIFICATION

**Hazard Classifications:** Skin Corrosion/Irritation: Category 2  
Eye Damage/Irritation: Category 2A

**Signal Word:** WARNING

**Hazard Statements:** Causes skin irritation.  
Causes serious eye irritation.

**Pictograms:**



**Precautionary Statements:**

**Prevention:** Wash thoroughly after handling.  
Wear protective gloves, eye protection, and face protection.

**Response:** If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage:** Not applicable.

**Disposal:** Not applicable.

**Hazards Not Otherwise Classified:** Not applicable.

**Toxicity Statement:** This product consists of 1.29% ingredients whose acute toxicities are unknown (see Section 11).

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Water	Water	7732-18-5	H <sub>2</sub> O	97.4
Acetic Acid	Ethanoic Acid	64-19-7	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	1.04
Phosphotungstic Acid, Hydrate	Tungstophosphoric Acid, Hydrate	12501-23-4	H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> • xH <sub>2</sub> O	0.693
Chromotrope 2R	Acid Red 29	4197-07-3	Na <sub>2</sub> C <sub>16</sub> H <sub>10</sub> O <sub>8</sub> N <sub>2</sub> S <sub>2</sub>	0.594
Light Green SF, Yellowish	Acid Green 5	5141-20-8	Na <sub>2</sub> C <sub>37</sub> H <sub>34</sub> O <sub>9</sub> N <sub>2</sub> S <sub>3</sub>	0.149
Fasf Green FCF	FD&C Green #3	2353-45-9	Na <sub>2</sub> C <sub>37</sub> H <sub>34</sub> O <sub>10</sub> N <sub>2</sub> S <sub>3</sub>	0.149

**Trade Secret Statement:** Not applicable.

### 4. FIRST AID MEASURES

#### First Aid Procedures:

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Rinse mouth with water. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center if symptoms occur.

**Skin Contact:** Remove contaminated clothing and shoes. Wash skin with plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if symptoms occur.

**Eye Contact:** Check for and remove contact lenses if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if symptoms occur.

**General Advice:** Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that medical personnel and those providing first aid are aware of the material(s) involved and take precautions to protect themselves.

**Symptoms and Effects:** ingestion may cause nausea. Inhalation may cause coughing. Contact with skin or eyes may cause irritation.

**Immediate Medical Care/  
Special Treatment:** Get medical attention if feeling unwell or concerned. Treat symptomatically.

## 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Water spray, dry powder, alcohol resistant foam, carbon dioxide.

**Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream, as it may scatter and spread fire.

**Hazardous Combustion Products:** Carbon oxides, tungsten oxides, phosphorus compounds, sodium oxides, sulfur oxides, nitrogen oxides.

**Specific Hazards:** Excessive thermal conditions may yield corrosive and/or toxic fumes.

**Special Protective Equipment/Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear. In the event of fire and/or explosion, do not breathe fumes.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Protective Equipment:** Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

**Emergency Procedures:** In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

**Methods for Containment:** Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover waste when possible.

**Methods for Cleanup:** Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with acetone or alcohol. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

## 7. HANDLING AND STORAGE

**Handling:** Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work areas. Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

**Storage:** Store in a cool, dry, ventilated area. Store away from incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Limits:** Water: No information found.

Acetic Acid: ACGIH: TWA: 10 ppm  
STEL: 15 ppm  
OSHA: PEL: 10 ppm  
NIOSH: IDLH: 50 ppm  
TWA: 10 ppm  
STEL: 15 ppm

Phosphotungstic Acid, Hydrate: No information found.

Chromorope 2R: No information found.

Light Green SF, Yellowish: No information found.

Fast Green FCF: No information found.

**Engineering Controls:** Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal Protective Measures:**

**Eye/Face Protection:** Wear safety glasses with side shields or goggles. Maintain approved eye wash station and accessible rinse facilities in work area.

**Skin Protection:** Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

**Respiratory Protection:** An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

**Specific Requirements for Personal Protective Equipment:** Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

*Unless otherwise indicated, all properties are given at 25 °C and standard pressure.*

**Appearance:** Greenish-purple, translucent liquid.

**Odor:** Odorless.

**Odor Threshold:** No information found.

**Formula Weight:** Mixture.

**pH:** No information found.

**Melting/Freezing Point:** No information found.

**Boiling Point/Range:** No information found.

**Decomposition Temperature:** No information found.

**Flash Point:** Not applicable.

**Auto-ignition Temperature:** Not applicable.

**Flammability:** Not flammable.

<b>Flammability/Explosive Limits:</b>	Not applicable.
<b>Solubility:</b>	Miscible with water.
<b>Vapor Pressure:</b>	No information found.
<b>Vapor Density:</b>	No information found.
<b>Relative Density:</b>	1.01 (Water = 1)
<b>Evaporation Rate:</b>	No information found.
<b>Viscosity:</b>	No information found.
<b>Partition Coefficient (n-octanol/water):</b>	No information found.

## 10. STABILITY AND REACTIVITY

<b>Reactivity Data:</b>	No information found.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	Excessive heat, incompatible materials.
<b>Incompatible Materials:</b>	Oxidizing agents, strong bases, metals, amines, carbonates, phosphates.
<b>Hazardous Decomposition Products:</b>	Carbon oxides, tungsten oxides, phosphorus compounds, sodium oxides, sulfur oxides, nitrogen oxides.
<b>Possibility of Hazardous Reactions:</b>	May react vigorously or violently if exposed to excessive thermal conditions or in contact with the incompatible materials listed above. Contact with incompatible materials or excessive thermal conditions may yield hazardous decomposition products listed above.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Routes of Exposure:</b>	Inhalation, ingestion, skin contact, eye contact.		
<b>Acute Effects:</b>	May be harmful if swallowed. May cause irritation if inhaled or exposed to the skin or eyes. May affect the mucous membranes, stomach, blood, brain, urinary system, liver, eyes, and kidneys.		
<b>Chronic Effects:</b>	Prolonged or repeated exposure may cause skin discoloration and respiratory irritation; may cause mutagenic effects, skin sensitization, and adverse reproductive effects.		
<b>Toxicological Data:</b>	Water:	Not applicable.	
	Acetic Acid:	LD <sub>50</sub> Oral, Rat:	3310 mg/kg
		LC <sub>50</sub> Inhalation, Rat:	11.4 mg/L 4 h
		LD <sub>50</sub> Dermal, Rabbit:	1060 mg/kg
		Corrosive to skin and eyes based on animal data.	
		May cause reproductive effects based on animal data.	
	Phosphotungstic Acid, Hydrate:	Corrosive to skin and eyes based on animal data.	
	Chromorope 2R:	Causes irritation to skin and eyes based on animal data.	
		May cause respiratory irritation based on animal data.	

Light Green SF, Yellowish: LD<sub>50</sub> Oral, Rat: > 2000 mg/kg  
May cause mutagenic effects based on animal data.  
May cause reproductive effects based on animal data.

Fast Green FCF: LD<sub>50</sub> Oral, Rat: > 2000 mg/kg  
Cause mutagenic effects based on animal data.

**Symptoms of Exposure:** Irritation, dizziness, visual disturbances, metabolic acidosis, shortness of breath, coughing, nausea, vomiting, blood in vomit, diarrhea, constipation, abdominal pain, blindness.

**Carcinogenic Effects:** No component of this product is considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC:** Fast Green FCF: Group 3 – Not classifiable as to its carcinogenicity to humans

## 12. ECOLOGICAL INFORMATION

**Ecotoxicological Data:**

Water:  
Not applicable.

Acetic Acid:  
EC<sub>50</sub>, Water Flea (*Daphnia magna*): 47 mg/L 24 h  
LC<sub>50</sub>, Fathead Minnow (*Pimephales promelas*): 88 mg/L 96 h  
LC<sub>50</sub>, Rainbow Trout (*Oncorhynchus mykiss*): > 1000 mg/L 96 h

Phosphotungstic Acid, Hydrate:  
No information found.

Chromorope 2R:  
No information found.

Light Green SF, Yellowish:  
LC<sub>50</sub>, Japanese Rice Fish (*Oryzias latipes*): > 1000 mg/L 48 h

Fast Green FCF:  
No information found.

**Persistence and Degradability:** Not expected to be readily biodegradable. Bioaccumulation of tungsten is possible.

**Environmental Effects:** May be harmful to aquatic organisms. Avoid release to the environment.

## 13. DISPOSAL INFORMATION

**Disposal Instructions:** All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8).

**Contaminated Packaging:** Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

**Waste Codes:** No information found.

## 14. TRANSPORT INFORMATION

**DOT:** Not regulated.

**Environmental Hazard Regulations:** Contains no components listed as marine pollutants by IMDG.

**Other Transport Precautions:** Acetic Acid: DOT Reportable Quantity: 5000 lb

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations:

**OSHA:** This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Inventory:** Chromotrope 2R is not listed on the US TSCA Inventory. The following statements are required under 40 CFR 720.36 (C):  
(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et al.  
(ii) The health risks of this product have not been fully determined. Any information that is available is supplied on this safety data sheet, and information that becomes available will be supplied on any revisions of this safety data sheet.

### U.S. EPCRA (SARA Title III):

**Section 302:** No information found.

**Sections 311/312:**

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	No
Immediate Hazard	No
Delayed Hazard	No
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

**Section 313:** No information found.

**CERCLA Reportable Quantities:** Acetic Acid, Glacial: 5000 lb

### International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	N/A
Canada	Domestic Substances List (DSL)	N/A
Canada	Non-Domestic Substances List (NDSL)	N/A
China	Inventory of Existing Chemical Substances in China (IECSC)	N/A
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	N/A
Europe	European List of Notified Chemical Substances (ELINCS)	N/A
Japan	Inventory of Existing and New Chemical Substances (ENCS)	N/A
Korea	Existing Chemicals List (ECL)	N/A
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	N/A

\*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

## 16. OTHER INFORMATION

**Disclaimer:** Rocky Mountain Reagents, Inc. provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. Rocky Mountain Reagents, Inc. makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, Rocky Mountain Reagents, Inc. assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

**Issue Date:** May 19, 2016

**Reason for Revision:** Update of Section 9 over 04/26/2016 version.