

**1. CHEMICAL AND COMPANY IDENTIFICATION**

**Product Identification:** ThinPrep® Stain Orange G Solution  
**Trade Name/Chemical Family/Synonyms:** ThinPrep® Stain Orange G Solution  
**Product Description:** An alcoholic dye solution.  
**Product Use:** The staining of cytological slide specimens.  
**Manufacturer:** Hologic Inc.  
250 Campus Drive  
Marlborough, Massachusetts 01752  
USA  
Telephone: 800-442-9892

**EMERGENCY TELEPHONE NUMBERS:** For Health/Transportation/Chemical Spills  
(24 hours a day and 7 days a week) (Multilingual capabilities and free calls accepted)  
Continental United States: (800) 424-9300  
Outside of continental United States: +(703) 527-3887

**2. COMPOSITION/ INFORMATION ON INGREDIENTS**

Chemical	CAS Registry #	Wt. %
Ethanol	64-17-5	Prop.
Isopropanol	67-63-0	Prop.
Methanol	67-56-1	Prop.
Orange G dye	001936-15-8	<1.0

**3. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:** Material is both flammable and toxic. Inhalation will cause nonspecific discomfort (nausea, weakness), and/or temporary CNS depression with anesthetic effects. Overexposure may cause liver damage and/or death.

**Potential Health Effects:**

**Inhalation:** May cause depression, nausea, weakness, and anesthetic effects.  
**Eye Contact:** May cause irritation.  
**Skin Contact:** May cause irritation.  
**Ingestion:** May cause intoxication, central nervous system depression, nausea, and dizziness. May damage liver, kidneys and nervous system.  
**Target Organs:** Liver, skin, eyes, respiratory and central nervous system.  
**Medical Conditions Aggravated by Exposure:** Individuals with preexisting diseases of the retina (eyes) or liver may have increased susceptibility to toxicity at lower levels of successive exposure (repeated exposures).  
**Chronic:** May cause chronic liver or nervous system disorders.

**4. FIRST AID MEASURES**

<b>Inhalation:</b>	Remove patient to fresh air. If symptoms of intoxication or vision problems are apparent, get immediate medical aid.
<b>Eye Contact:</b>	Immediately flush with clean water for at least 15 minutes. Get medical aid.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Flush affected area with copious amounts of water. If irritation or other symptoms are present, get immediate medical assistance.
<b>Ingestion:</b>	<b>Do not induce vomiting unless directed to do so by medical personnel.</b> Give one or two glasses of water and get immediate medical assistance.
<b>Notes to Physician:</b>	Treat for CNS depression. Ethanol is the predominant alcohol.

**5. FIRE FIGHTING MEASURES**

<b>Flammability:</b>	Flash point: 56° F (14° C) (closed cup)(based on ethanol component) Auto ignition temperature: 685° F ( 363° C) (based on ethanol component) Flammable limits: LEL = 19 UEL = 3.3 (based on ethanol component) Flammable liquid and vapor.	
<b>Explosion Data:</b>	Above flash point, vapor air mixtures are explosive within flammable limits noted above. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames. Sensitive to static discharge.	
<b>General Hazard:</b>	Flammable material. Heated material may form toxic and/or explosive vapors.	
<b>Fire Fighting Instructions:</b>	Wear full turnout gear with NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. If material is not involved in fire, attempt to cool with water or remove from area. <b>FLAME INVISIBLE IN DAYLIGHT</b>	
<b>Fire Fighting Equipment:</b>	Wear full turnout gear with NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.	
<b>Extinguishing Media:</b>	Use dry chemical, alcohol foam, water, or carbon dioxide.	
<b>Hazardous Combustion Products:</b>	Carbon Monoxide and Carbon Dioxide	
<b>NFPA Hazard Rating:</b> (National Fire Protection Association)	Health – 1 Flammability – 3 Reactivity – 0 Special Information – None	0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme U=Unknown *=No Information
<b>Special Information:</b>	None	

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions:</b>	Immediately contact emergency personnel. Keep unnecessary personnel away. Ventilate area of leak or spill. Remove all sources of ignition. Use suitable protective equipment (Section 8). Isolate hazard area.
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- Environmental Precautions:** Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Dyke large spills with absorbent with an inert material (e.g., vermiculite, dry sand, earth). Absorb small spills with clay or kitty litter. For spills in excess of 50 gallons, contact licensed HAZWOPER responders.
- Methods for Containment:** Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth).
- Methods for Clean-Up:** Scoop up with non-sparking tools and equipment then place into a suitable container for disposal.
- Other Information:** Follow local, state, provincial and federal guidelines for all spills.

### 7. HANDLING AND STORAGE

- Handling:** KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with eyes, skin and clothing. Keep container closed. Wear recommended personal protective equipment. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Wash thoroughly after handling.
- Storage:** Store away from excessive heat and sources of ignition. Keep container closed and protect from damage.  
Storage temperature: 59 – 86°F (15 – 30°C)

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

- Engineering Controls:** Supply exhaust and/or ventilation to keep vapor levels below threshold limit value.
- Personal Protective Equipment:**  
**Eye/Face Protection:** Wear safety glasses with side shields.  
**Hand Protection:** Wear chemical resistant gloves.  
**Skin and Body Protection:** Wear suitable protective clothing.  
**Respiratory Protection:** Where engineering controls are not adequate, use approved NIOSH respirators or supplied air respirators.

**Exposure limit values:**

Ingredient	OSHA PEL	ACGIH TLV®	
Ethanol  TWA – 8 hr STEL – 15 minute	1000 ppm – TWA	1000 ppm – TWA	
	Canada – Alberta, British Columbia, New Brunswick, Manitoba, Ontario, Quebec, and Yukon		Canada – Saskatchewan
	1000 ppm – TWA 1250 ppm – STEL (Alberta only)		1880 mg/m <sup>3</sup> TWA 2350 mg/m <sup>3</sup> STEL
Isopropanol  TWA – 8 hr STEL – 15 minute	400 ppm – TWA	400 ppm – TWA 500 ppm- STEL	
	Canada – Alberta, British Columbia, New Brunswick, Manitoba, Ontario, Quebec, and Yukon		Canada – Saskatchewan
	400 ppm – TWA 500 ppm – STEL		983 mg/m <sup>3</sup> TWA 1230 mg/m <sup>3</sup> STEL
Methanol	200 ppm – TWA	200 ppm – TWA	
		250 ppm – STEL Skin	

TWA – 8 hr STEL – 15 minute	Canada – Alberta, British Columbia, New Brunswick, Manitoba, Ontario, Quebec, and Yukon	Canada – Saskatchewan
	200 ppm – TWA 250 ppm – STEL Skin	262 mg/m <sup>3</sup> TWA 328 mg/m <sup>3</sup> STEL

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b> Orange, clear <b>Odor:</b> Alcohol type odor <b>Specific Gravity (Water=1):</b> 0.82 <b>Solubility in Water:</b> Complete <b>Freezing Point (°F/°C):</b> Not available <b>Evaporation Rate:</b> Not available <b>Viscosity:</b> Not available <b>Lower Flammability Limit:</b> Not available <b>Coefficient of Water/Oil Distribution:</b> Not available	<b>Color:</b> Orange <b>Physical State:</b> Liquid <b>VOC Content, wt. %:</b> Not available <b>Vapor Density (Air=1):</b> 1.6 <b>Vapor Pressure mm/Hg:</b> 44.6 <b>pH:</b> 7 <b>Boiling Point (°F/°C):</b> 177°F ( 80.5°C) <b>Upper Flammability Limit:</b> Not available <b>Auto-ignition Temperature:</b> Not available
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### 10. STABILITY AND REACTIVITY

<b>General Stability:</b>	Stable under normal temperatures and pressures.
<b>Conditions To Avoid:</b>	High temperatures, incompatible materials, ignition sources, oxidizers.
<b>Incompatible Materials:</b>	Strong oxidizers (may ignite product).
<b>Hazardous Decomposition Products:</b>	May form carbon dioxide and carbon monoxide.
<b>Hazardous Polymerization:</b>	Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**For Ethanol:** Product not tested as a mixture

<b>Inhalation:</b>	LC50 Rat: 20000 ppm/10H
<b>Oral:</b>	LD50 Rat: 7060 mg/kg LD50 Mouse: 3450 mg/kg

### 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	For Ethanol: This material has very low aquatic toxicity. Fish: LC50 (96 hr) Pimephales promelas (fathead minnows): 14200 mg/L EC50 (30 min) Photobacterium phosphoreum: 34634 mg/L
<b>Persistence / Degradability:</b>	No data available.
<b>Bioaccumulation / Accumulation:</b>	No data available.
<b>Mobility in Environment:</b>	No data available.

### 13. DISPOSAL CONSIDERATION

<b>Disposal Instructions:</b>	Dispose of container and unused contents in accordance with local, state, provincial, and federal laws.
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RCRA Hazardous Waste if Discarded? Yes

RCRA ID number: D001, Ignitable waste.

**14. TRANSPORTATION INFORMATION**

Regulatory Information	UN number	Proper shipping name	Class	Packing group
US DOT Classification	1993	Flammable liquids, n.o.s. (ethanol, methanol)	3	II

**15. REGULATORY INFORMATION**

**USA:** The MSDS was prepared pursuant to the Hazardous Communication Standard (29 CFR 1910.1200).

**Toxic Substances Control Act (TSCA):** All ingredients listed on TSCA inventory.

**CERCLA:** Reportable Quantity (RQ) for methanol- 5,000 pounds (2270 kg). No Threshold Planning Quantity (TPQ) established for methanol.

**SARA 311 Status:** Immediate, fire hazard

**SARA 313:** Methanol is listed on the 313 Toxic Pollutant reporting list. Maximum concentration in this product is 4.5%.

**State Issues:** Not listed for California Proposition 65

**WHMIS Status (Canada):** A controlled product. Classification: B2;D1B;D2A, D2B  
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Foreign Chemical Inventories:** All ingredients are listed on the chemical inventories of the following countries:  
Canada (DSL)  
Japan  
European Union  
Australia

**16. OTHER INFORMATION**

**Current Issue Date:** April, 2010

**Previous Issue Date:** Initial Hologic

**Other Information:** None

**Information Note:** Where no corresponding data was contained in manufacturer's MSDS, additional research is required and available upon request. THE INFORMATION RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY ONESELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OR HER OWN PARTICULAR USE.