



HYBRIVET SYSTEMS, INC.

P.O. BOX 1210,

FRAMINGHAM, MA

01701

## MATERIALS SAFETY DATA SHEET

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Date Prepared: 6/18/96

MSDS No.: CRC001.

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ChromateCheck Swabs

Product Number: 7CR8

General Use: Field test for chromate ion ( $\text{CrO}_4^{=}$ )

Product Description: ChromateCheck is a fiber tipped Swab with two glass ampules enclosed in the barrel of the Swab. The glass ampules contain the chromate reactive reagents. The Swab is activated by manually crushing both glass ampules within the barrel of the swab, shaking once to mix and squeezing gently to initiate the flow of liquid. The tip of the Swab is then rubbed on the test surface for 30-60 seconds. A pink or purple color on the tip of the Swab and/or on the test surface indicates the presence of chromate ion.

#### MANUFACTURER:

HybriVet Systems, Inc.  
17 Erie Drive  
Natick, MA 01760

800-262-5232 Information Hot Line; M-F, 8:30 am to 6:00 pm.

Date prepared or revised: March 24, 1998

Name of Preparer: Meredith M. Hunter

### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	KNOWN HAZARD	WT%	CAS Registry #
Chromate reactive dye	Unknown	< 1%	Trade secret
Sulfuric Acid (1.8N)	Toxic Chemical	3.1%	7664-93-9

### **SECTION 3. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:** Each ChromateCheck Swab looks like a cigaret in size and shape with a fiber tip at one end. Inside the cardboard wrapped plastic barrel of the Swab are two sealed glass ampules. The ampule under "A" is filled with the a tiny amount of chromate reactive dye. The ampule under "B" is filled with a small amount of activating solution, 1.8 N sulfuric acid. Combustion of the product produces sulfur containing toxic fumes or by products.

**POTENTIAL HEALTH EFFECTS:** To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated for the chromate reactive dye.

A small amount (less than 1 ml) of a 1.8N sulfuric acid solution is contained in each Swab. Under normal use this amount does not pose a hazard. However, caution should be exercised in handling the used Swab. Avoid touching the fiber tip wet with acid. Wrap used swab in a plastic baggie and dispose of it in the trash. Wash and rinse the area tested to neutralize the acid left on the surface.

The following warnings actually apply to large amounts of sulfuric acid, but should be noted here.

**INHALATION:** Sulfuric acid fumes are extremely destructive to tissue of the mucous membranes and upper respiratory tract.

**EYE CONTACT:** Sulfuric acid is extremely destructive to the mucous membranes of the eye.

**SKIN CONTACT:** In concentrated form, sulfuric acid causes burns.

**INGESTION:** Sulfuric acid is extremely destructive to the mucous membranes that line the digestive tract.

**CHRONIC:** May be harmful upon chronic exposure.

### **SECTION 4. FIRST AID MEASURES**

**INHALATION:** Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

**EYE CONTACT:** In case of contact, immediately flush eyes with large amounts of water for a least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**SKIN CONTACT:** In case of contact, immediately wash skin with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes and call a physician.

**INGESTION:** If swallowed and the person is conscious, immediately wash out mouth with water. Call a physician.

**NOTE:** Wash contaminated clothing before reuse.

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#### **SECTION 5. FIRE FIGHTING MEASURES**

Flashpoint and Method: N/A  
Flammable Limits: N/A  
Autoignition Temperature: Not Available

**GENERAL HAZARD:** Sulfuric acid is a noncombustible. No special precautions need be taken because of the dye.

##### **FIRE FIGHTING INSTRUCTIONS:**

Extinguishing media - water spray, carbon dioxide, dry chemical powder, alcohol or polymer foam or other extinguishing media appropriate for surrounding fire.

**FIRE FIGHTING EQUIPMENT:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**HAZARDOUS COMBUSTION PRODUCTS:** Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides. Sulfuric acid reacts violently with water and organic materials.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

**LAND SPILL:** Should a large quantity of ChromateCheck Swabs (several case lots) be spilled and crushed, wear suitable protective clothing, self-contained breathing apparatus, rubber boots and heavy rubber gloves. Cover with dry lime or soda ash, pick up, keep in a closed container and hold for waste disposal. Ventilate area and wash spill site after material pick-up is complete.

**WATER SPILL:** Should a large quantity of ChromateCheck Swabs be accidentally dumped into a large body of water, simply recover the Swabs and dispose appropriately.

#### **SECTION 7. HANDLING AND STORAGE**

STORAGE TEMPERATURE: Ambient  
STORAGE PRESSURE: Atmospheric

**GENERAL:** Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling or wear protective gloves.  
Keep kits tightly closed and store in a cool dry place.

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Use in a well ventilated area.

##### **PERSONAL PROTECTION:**

**RESPIRATOR:** not necessary when using individual ChromateCheck Swabs.

**PROTECTIVE CLOTHING:** No specialized clothing required.

**EXPOSURE GUIDELINES:** Avoid prolonged exposure.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**A. Chromate reactive dye**

Physical State: solid  
Appearance: orange powder  
Odor: none  
pH: N/A  
Freezing Point: N/A  
Solubility in water: moderate

Vapor Pressure: N /A  
(Air = 1)  
Evaporation Rate: N/A  
(n-Butyl Acetate = 1)  
Melting Point: 156°C to 159°C

**B. Sulfuric Acid Activator Solution**

Physical State: liquid  
Appearance: clear  
Odor: pungent odor  
pH: <1.0  
32°F (0°C)

Vapor Pressure: N /A  
(Air = 1)  
Evaporation Rate: N/A  
(n-Butyl Acetate = 1) Viscosity: 1.0  
Boiling Point: 212°F (100°C)

**SECTION 10. STABILITY AND REACTIVITY**

**GENERAL:** The reagents contained in ChromateCheck Swabs are stable. Hazardous polymerization will not occur for sulfuric acid. No hazardous polymerization has been documented for the chromate reactive dye.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:** Strong oxidizing agents. Large quantities of concentrated sulfuric acid react violently with metals, nitrates, chlorates, carbides, fulminates, picrates and organic chemicals.

**HAZARDOUS DECOMPOSITION:** Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and sulfur oxides can form on combustion or decomposition.

**SECTION 11. TOXICOLOGICAL INFORMATION**

To the best of our knowledge, the toxicological properties of the chromate reactive dye have not been thoroughly investigated.

**SECTION 12. ECOLOGICAL INFORMATION**

No data are available on the adverse effects of the chromate reactive dye on the environment. Small quantities of sulfuric acid will not adversely affect the environment.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Individual ChromateCheck Swabs may be disposed of as nonhazardous waste.

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**SECTION 14. TRANSPORT INFORMATION**

DOT (Department of Transportation): Not a hazardous material for DOT shipping.  
PROPER SHIPPING NAME: ChromateCheck Swabs  
HAZARD CLASS: N/A  
IDENTIFICATION NUMBER: N/A

**SECTION 15. REGULATORY INFORMATION**

**TSCA (Toxic Substance Control Act):**

The chromate reactive dye is NOT listed on the TSCA Inventory.

Sulfuric Acid is listed:

EPA TSCA Chemical Inventory, 1986.

EPA TSCA Section 8(E) Status Report 8EHQ-0985-0566.

EPA TSCA Test Submission (TSCATS) Data Base, June 1988.

**CERCLA (Comprehensive Response Compensation, and Liability Act):**

This product contains no Reportable Quantity (RQ) Substances (1000 lbs. for sulfuric acid).  
We recommend you contact local authorities to determine if there may be other local reporting requirements.

**SARA TITLE III (Superfund Amendments and Reauthorization Act):**

311/312 Hazard Categories: The components of this product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and this product is considered, under applicable definitions, to meet the following categories:

The chromate reactive dye has not met any hazard category.

Sulfuric acid is listed as a SARA extremely hazardous substance with a TPQ of 1000 lbs.

313 Reportable Ingredients: Sulfuric acid is listed as a toxic chemical; the de minimis concentration is 1.0 %.

Sulfuric Acid is listed as an OSHA floor list substance.

**CALIFORNIA PROPOSITION 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product contains NO chemicals known to the state of California to cause cancer.

**SECTION 16. OTHER INFORMATION**

No specific notes.

REVISION SUMMARY: There have been no revisions since March 24, 1998.

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THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. HYBRIVET SYSTEMS

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