= SECTION II -- HAZARDOUS INGREDIENTS OF MIXTURES

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SECTION III -- PHYSICAL DATA

SECTION IV -- FIRE AND EXPLOSION DATA =

Although hexavalent chromium compounds are considered to be oxidizing, due to the insolubility of lead chromates very little oxidizing hazard is expected. Lead chromates in the presence of organic compounds at elevated temperatures may create

SECTION V -- HEALTH HAZARD DATA =

SECTION I -- IDENTIFICATION

SUPPLIER'S NAME Harshaw/Filtrol Partnership

Cleveland, Ohio 44124

D.O.T. CLASSIFICATION Not regulated

Material or Component

BOILING POINT Not applicable

SPECIFIC GRAVITY (H20=1) 5.47 (typical)

VAPOR DENSITY (Air=1) Not applicable

% VOLATILES BY VOLUME Not applicable

APPEARANCE AND ODOR Fine soft yellow powder; odorless

Chromate (as CrO3)

ADDRESS 30100 Chagrin Blvd.

CAS No. 1344-37-2

Lead

a fire hazard.

THRESHOLD LIMIT VALUE San Saction IT above

U.N. No. Not applicable

H-33-84-WP

DATE: 10/31/85

CHEMICAL NAME Co-precipitate of

lead chromate and lead sulfate

Chrome Yellow Medium

High Gloss, Color No. 234

216/292-9200

CODE: 821-777

EMERGENCY TELEPHONE

C.I. Pigment Yellow 34

Threshold Limit Value

SOLUBILITY IN H2O (% by Wt.) Insoluble

Not applicable

FORMULA C.I. 77600

58.0(typical) 0.050mg/m3 as Pb(OSHA 8-hr TWA)

MELTING POINT

Not applicable

25.5(typical) 0.100mg/m3 as CrO3(OSHA 8-hr TWA)

VAPOR PRESSURE 'Not applicable

EVAPORATION RATE (Butyl Acetate=1)

HARSHAW/FILTROE 1 MAR 1980 MATERIAL SAFETY DATA SHEET

- PRODUCT NAME

EFFECTS OF OVEREXPOSURE

Eve contact may cause irritation.

Skin contact may cause irritation and also allgeric reaction.

Inhalation may cause respiratory irritation and also allergic reaction.

Chronic:

- A. Prolonged or repeated inhalation and ingestion, such as from poor hygiene, housekeeping or handling practices, can result in lead poisoning. Early symptoms are fatigue, disturbance of sleep, and constipation, with more severe exposure followed by colic, anemia and neuritis (nerve inflamation). Prolonged over-exposure can severely damage red blood cell formation, kidneys and nervous system. Other symptoms include loss of appetite, metallic taste in mouth, anxiety, nausea, pallor, headache, irritability, muscle and joint pain, tremors, numbness, dizziness, and hypertension.
- B. The OSHA lead standard reports that lead may impair the reproductive systems of both men and women; damage may also be caused to unborn fetuses. Lead chromate is suspected to cause lung cancer and is listed by the National Toxicology Program 1983 Annual Report on Carcinogens and the ACGIH, 1983-84 list of Industrial Substances Suspect of Carcinogenic Potential for Man.

EMERGENCY AND FIRST AID PROCEDURES

Eye and Skin contact: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Call a physician

If any other harmful effects are suspected, a physician should be called promptly to determine the necessity for treatment or other testing.

== DATE:	10/31/85		SECTION	VI		REACTIVITY	DATA		CODE:	821-777	_
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CONDITIONS CONTRIBUTING TO INSTABILITY None expected

INCOMPATIBILITY See Section IV, Fire and Explosion Data

HAZARDOUS DECOMPOSITION PRODUCTS None expected

SECTION VII -- SPILL OR LEAK PROCEDURES =

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Immediately scoop up or vacuum spillage. Avoid dusting. Depending on the quantity spilled, notification of the National Response Center (800/424-8802) may be required in the case of hazardous substances. (See EPA, DOT and various state and local regulations.)

We recommend that the purchaser establish a spill prevention, control and countermeasure plan. This plan should include procedures for proper storage as well as clean-up of spills and leaks. The procedures should conform to safe practices and provide for proper recovery or disposal.

WASTE DISPOSAL METHOD Dispose of in accordance with Federal, state and local laws. Lead chromate pigments if disposed of by themselves are a hazardous waste on the basis of EP Toxicity under EPA hazardous waste regulations. Waste mixtures containing this product should be tested for EP toxicity.

SECTION	WITT	PROTECTIVE	FOUTDMENT
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<u>VENTILATION</u> Local exhaust ventilation is recommended to control exposures to within OSHA limitations for both lead and chromates. The ventilation systems must be evaluated quarterly.

PERSONAL PROTECTIVE EQUIPMENT

Chemical goggles.

Gloves

Body protection as necessary to prevent skin contact. A NIOSH/MSHA approved respirator as necessary

SECTION IX -- SPECIAL PRECAUTIONS =

Avoid breathing dust.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Keep container closed.

Keep away from food and feed products.

NOTE: Consult the most recent OSHA Lead Standard (1910.1025) and its attachments, appendices, etc., for full requirements, some of which are not covered in this Material Safety Data Sheet.

= SECTION X -- PERSONNEL SAMPLING PROCEDURE =

Air Sampling for Lead: Refer to NIOSH Manual of Analytical Methods, 3rd Edition, Volumw 2, Method 7082. (If there are no exposures to other chromium compounds, total chromium as hexavalent chromium can be determined on the same samples.) Air Sampling for Hexavalent Chromium: Refer to NIOSH Manual of Analytical Methods, 3rd Edition, Volume 1, Method 7600.

Biological Monitoring for Lead: Blood lead testing may be required. Consult OSHA Lead Standard 1910.1025 and your local physician for specific requirements.

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DATE: 10/31/85

CODE: 821-777

PRODUCT: Chrome Yellow Medium High Gloss, Color No. 2343