

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT AND SUPPLIER IDENTIFICATION

PRODUCT: ROBERTS GRAY PIGMENT

MSDS PREPARATION DATE: February 03, 2006

SUPPLIER: FIBERLAY, Inc.
ADDRESS: 24 S. Idaho St.
Seattle, WA 98134-1119

TELEPHONE: (206) 782-0660
EMERGENCY TELEPHONE NUMBER: (800) 424-9300 (CHEMTREC)

SECTION 2 – INGREDIENTS

Component	% (w/w)	CAS Number	Exposure Limits
NJTSR No. 56705700001-5382P Resin	5-30	Proprietary	None Established
Amorphous silica	0-5	007631-86-9	OSHA PEL/TWA: 20 mppcf ACGIH TLV/TWA: 10 Mg/Cu.M.
Aluminum hydroxide	0-5	021645-51-2	None Established
Red Iron Oxide Pigment	0	001332-37-2	OSHA PEL/TWA: 10 Mg/Cu. M. ACGIH TLV/TWA: 5 Mg/Cu.M.
C.I. Pigment Yellow 42 (Iron Oxide)	0	051274-00-1	OSHA PEL/TWA: 10 Mg/Cu. M. ACGIH TLV/TWA: 5 Mg/Cu.M.
Light Chrome Yellow Pigment (C.I. Pigment Yellow 34 – Lead sulfochromate)	0	001344-37-2	OSHA PEL/TWA: 0.05 Mg/Cu.M. (Pb) ACGIH TLV/TWA: 0.012 Mg/Cu.M. (Cr)
Medium Chrome Yellow Pigment (C.I. Pigment Yellow 34 – Lead sulfochromate)	0	001344-37-2	OSHA PEL/TWA: 0.05 Mg/Cu.M. (Pb) ACGIH TLV/TWA: 0.012 Mg/Cu.M. (Cr)
Quinacridone Red Pigment (C.I. Pigment Red 122)	0	980-26-7	OSHA PEL/TWA: None Established ACGIH TLV/TWA: None Established
Quinacridone Violet Pigment (C.I. Pigment Violet 19)	0	1047-16-1	OSHA PEL/TWA: None Established ACGIH TLV/TWA: None Established
Moly Orange Pigment (C.I. Pigment Red 104 – Lead molybdates/Lead chromate/Lead sulfate co-precipitates)	0	012656-85-8	OSHA PEL/TWA: 0.05 Mg/Cu.M. (Pb) ACGIH TLV/TWA: 0.012 Mg/Cu.M. (Cr)
Phthalo Blue Pigment GS (C.I. Pigment Blue 15)	0	00147-14-8	OSHA PEL/TWA: 1 Mg/Cu.M. (Cu) ACGIH TLV/TWA: 1 Mg/Cu.M. (Cu)

Component	% (w/w)	CAS Number	Exposure Limits
Phthalo Blue Pigment RS (C.I. Pigment Blue 15)	0	00147-14-8	OSHA PEL/TWA: 1 Mg/Cu.M. (Cu) ACGIH TLV/TWA: 1 Mg/Cu.M. (Cu)
Phthalo Green Pigment RS (C.I. Pigment Green 7)	0	1328-53-6	OSHA PEL/TWA: 1 Mg/Cu.M. (Cu) ACGIH TLV/TWA: 1 Mg/Cu.M. (Cu)
Carbon Black	10-30	001333-86-4	OSHA PEL/TWA: 3.5 Mg/Cu. M.
Titanium Dioxide	30-60	013463-67-7	ACGIH TLV/TWA: 10 Mg/Cu.M. (Total Dust) OSHA PEL/TWA: 15 Mg/Cu.M. (Total Dust) LD50, Oral: >7500 Mg/Kg (Rat) LD50, Dermal: NOT AVAILABLE LC50, Inhalation: NOT AVAILABLE
Aluminum Oxide	0	001344-28-1	OSHA PEL/TWA: 15.000 Mg/Cu.M. ACGIH TLV/TWA: 10.000 Mg/Cu.M.

SECTION 3 - HAZARDS IDENTIFICATION

EFFECTS OF EXCESSIVE OVEREXPOSURE.

PRIMARY ROUTES OF ENTRY ARE:

EYE CONTACT:

A slight irritant based on animal testing of a similar product.

SKIN CONTACT:

A moderate irritant based on animal testing of a similar product. May cause redness and drying of skin. The product contains a component which is not a skin sensitizer but may cause fatigue based on animal testing.

INHALATION:

Possibly irritating.

INGESTION:

May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

GENERAL: **(NOTE: See SECTION 2 For INGREDIENTS)**

Some pigments contain titanium dioxide. High concentrations of titanium dioxide dust caused microscopic lung tumors in rats in lifetime inhalation studies. However, DuPont, the primary US manufacturer, based on a review of the test data and based on an epidemiological study of employees, concludes that titanium dioxide pigment will not cause chronic respiratory disease in humans at concentrations experienced in the workplace.

Some pigments contain carbon black. Some studies have linked exposure of carbon black dust to lung effects. IARC classifies carbon black as a Category 2B Carcinogen (known animal carcinogen, possible human carcinogen) based on inhalation studies. However, the manufacturers of carbon black state that epidemiologic studies of workers in the carbon black industry in the U.S. and W. Europe show no significant adverse health effects due to occupational exposure. Because this product is a free-flowing liquid or paste, dust inhalation is not an expected route of exposure.

Some pigments contain Lead and/or Lead compounds. Lead and Lead compounds are cumulative poisons; blood levels can increase with repeated exposure causing blood, kidney, liver, reproductive, developmental and nervous system effects. Symptoms may include abdominal discomfort or pain,

nausea, diarrhea, loss of appetite, dizziness, lassitude, lack of coordination and insomnia. Lead chromate is listed as a suspect human carcinogen by IARC (Group 2B). However, recent toxicity data indicate that Lead chromate pigments are non-carcinogenic or at least show extremely low carcinogenic potential based on lung implantation studies on rats. Furthermore, Lead chromate pigments do not show an increase in lung cancer rates according to epidemiological studies of workers in factories that produce only Lead chromate pigments.

Some pigments contain iron oxide. Prolonged inhalation of iron oxide dust is known to produce a condition known as siderosis. On X-rays it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis producing materials such as silica. Because this product is a free-flowing liquid or paste, dust inhalation is not an expected route of exposure.

SECTION 4 – FIRST AID MEASURES

FIRST AID

EYE CONTACT:

In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops.

SKIN CONTACT:

Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If symptoms develop or persist, obtain medical attention. Wash clothing before reuse.

INHALATION:

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

INGESTION:

If swallowed, do NOT induce vomiting. Have victim drink 8-10 ounces of water to dilute material in stomach. Get medical attention immediately. Never give anything by mouth to an unconscious person.

SECTION 5 – FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CHARACTERISTICS

Flash Point: > 230° F

Flash Point Method: Setaflash Closed Cup

Lower Explosive Limit: Not determined

Upper Explosive Limit: Not Determined

OSHA Flammability Classification: None

Autoignition Temperature: Not Determined

EXTINGUISHING MEDIA:

Use water spray or fog, foam, dry chemical or CO₂.

FIRE FIGHTING PROCEDURES:

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Ventilate area. Use personal protective equipment as described in Section 8. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater, or soil.

SECTION 7 – HANDLING AND STORAGE

HANDLING:

Wash thoroughly after handling. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with eyes, skin and clothing.

STORAGE:

Store in a cool, dry place. Keep container closed when not in use.

KEEP OUT OF REACH OF CHILDREN - FOR INDUSTRIAL USE ONLY!

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use adequate ventilation.

RESPIRATORY PROTECTION:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

EYE PROTECTION:

Use chemical splash goggles.

SKIN PROTECTION:

Use impermeable gloves.

OTHER PROTECTIVE EQUIPMENT:

A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure :	Not available
Vapor Density (Air = 1):	Is heavier than air
Specific Gravity (Water = 1):	~1.1 – 2.1
Boiling Point:	Not available
pH:	NA
Viscosity:	75-110 KU @ 77° F
VOC Content (lbs./gal.):	0.00
Evaporation Rate:	Is slower than Butyl Acetate

OTHER PROPERTIES

GRAY COLORED Paste. Faint odor. Solubility in water: Negligible.

SECTION 10 – STABILITY AND REACTIVITY

STABILITY:

This product is stable under normal storage conditions.

HAZARDOUS POLYMERIZATION:

Will not occur under normal conditions.

CONDITIONS TO AVOID:

High temperature.

INCOMPATIBILITY WITH OTHER MATERIALS:

Oxidizing materials. Strong acids. Peroxides. Hydrazides. Alkali metals.

SECTION 11 – TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGICAL INFORMATION: (NOTE: See SECTION 2 For INGREDIENTS)

	Oral LD50 <u>(rat)</u>	Dermal LD50 <u>(rabbit)</u>	Inhalation LC50 <u>(rat)</u>
C.I. Pigment Yellow 42 (Iron Oxide)	> 5,000 mg/kg	N/A	N/A
C.I. Pigment Yellow 34 (Lead sulfochromate)	> 2,000 mg/kg	N/A	N/A
C.I. Pigment Blue15 (Phthalocyanine)	> 5,000 mg/kg	N/A	N/A
Carbon Black	> 10,000 mg/kg	N/A	N/A
Amorphous Silica	> 31,600 mg/kg	> 2,000 mg/kg	N/A
Titanium Dioxide	> 24,000 mg/kg	> 10,000 mg/kg	> 6,820 mg/kg

OTHER TOXICOLOGICAL INFORMATION:

No information available.

SECTION 12 – ECOLOGICAL INFORMATION

No product ecological data available

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Waste must be disposed of in accordance with federal, state, provincial and local regulations.

CONTAINER DISPOSAL:

Empty the containers by removing the top and inverting to allow all free flowing product to drain. To meet regulatory criteria, the container is considered empty when less than 3% remains in the container. Additional special handling is not typically required and the empty container can be discarded with other non-hazardous trash.

Note: Local disposal regulations may be more stringent and require additional restrictions or precautions. Customers should check with their local disposal company, municipal or state authority. Recycle of plastic or metal containers may require clean rather than empty containers. In this case the containers can be rinsed with water until the containers are considered generally product free.

SECTION 14 – TRANSPORT INFORMATION

U.S. DOT Transport Information: Not Regulated

SECTION 15 – REGULATORY INFORMATION

FEDERAL REGULATIONS:

TSCA (Toxic Substances Control Act) – United States – The intentional ingredients of this product are listed.

CLEAN AIR ACT SECTION 112: (NOTE: See SECTION 2 For INGREDIENTS)

This product may contain the following components listed as Hazardous Air Pollutants:

LEAD COMPOUNDS	CAS# N/A	Percent by Weight: 58.000
CHROMIUM COMPOUNDS	CAS# N/A	Percent by Weight: 15.000

SARA TITLE III:

SARA 302 Components – 40 CFR 355 Appendix A - None

SARA 311/312 Hazard Class – 40 CFR 370.2

Immediate (X) Delayed (X) Fire () Reactive ()
Sudden Release of Pressure ()

SARA 313 INFORMATION: (NOTE: See SECTION 2 For INGREDIENTS)

This product may contain the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372:

COPPER COMPOUNDS	CAS# N/A	Percent by Weight: 12.000
LEAD COMPOUNDS	CAS# N/A	Percent by Weight: 58.000
CHROMIUM COMPOUNDS	CAS# N/A	Percent by Weight: 15.000

CERCLA RQ – 40 CFR 302.4(a)

None

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65 INFORMATION: (NOTE: See SECTION 2 For INGREDIENTS)

WARNING - This product may contain a chemical(s) known to the State of California to cause cancer and/or birth defects.

This product may contain the following substances known to the State of California to cause cancer:

C.I. Pigment Yellow 34 (Lead sulfochromate)

This product may contain the following substances known to the State of California to cause adverse reproductive effects:

C.I. Pigment Yellow 34 (Lead sulfochromate)

HAP CONTENT:

None

SECTION 16 – OTHER INFORMATION

NFPA RATINGS:

Health: 1 Flammability: 1 Reactivity: 0

NPCA HMIS INFORMATION:

Health: 2 Flammability: 1 Reactivity: 0 Personal Protective Equipment: C

PREPARATION DATE: February 03, 2006

PREPARED BY: David L. Ellsworth

REVISIONS: None

The information contained herein is information received from our raw material suppliers and other sources and is believed to be reliable and accurate. This data or information is not to be taken as a warranty for which FIBERLAY, INC. assumes legal responsibility.
