

M. Graham & Co.

P.O. Box 215
West Linn, OR 97068-0215
Tel/Fax 503 656 6761

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Emergency Telephone:
Contact Local Poison Control Center

SECTION I---PRODUCT IDENTIFICATION

This MSDS applies to Artists' Professional Watercolor and Gouache pigment dispersions.

M. GRAHAM & CO. WATERCOLOR & GOUACHE**Section Ia****HMIS Codes** (see Section X)

<u>Pigment/Paint Color</u>	<u>H</u>	<u>F</u>	<u>R</u>	<u>P</u>	<u>Hazardous Components</u> (Section II)
Alizarin Crimson	1	0	0	X	1
Anthraquinone Blue	1	0	0	X	-
Azo Green	1	0	0	X	-
Azo Orange	1	0	0	X	-
Azo Yellow	1	0	0	X	-
Bismuth Yellow	1	0	0	X	-
Burnt Sienna	1	0	0	X	8, 9
Burnt Umber	1	0	0	X	8, 9, 10
C.P. Cadmium Orange	2	0	0	X	3, 4, 14
C.P. Cadmium Red	2	0	0	X	3, 4, 14
C.P. Cadmium Red Deep	2	0	0	X	3, 4, 14
C.P. Cadmium Red Light	2	0	0	X	3, 4, 14
C.P. Cadmium Yellow	2	0	0	X	3, 4, 14
C.P. Cadmium Yellow Deep	2	0	0	X	3, 4, 14
C.P. Cadmium Yellow Light	2	0	0	X	3, 4, 14
Cerulean Blue	1	0	0	X	5, 6
Cerulean Blue Deep	1	0	0	X	5, 6
Chinese White	1	0	0	X	12, 13
Cobalt Blue	1	0	0	X	6
Cobalt Green	1	0	0	X	6
Cobalt Teal	1	0	0	X	6
Cobalt Violet	1	0	0	X	6
Dioxazine Purple	1	0	0	X	-
Gamboge	1	0	0	X	-
Hansa Yellow Deep	1	0	0	X	-
Hansa Yellow	1	0	0	X	-
Hooker's Green	1	0	0	X	7
Indian Yellow	1	0	0	X	-
Ivory Black	1	0	0	X	2
Lamp Black	1	0	0	X	2
Maroon Perylene	1	0	0	X	-
Manganese Blue Hue	1	0	0	X	7
Mineral Violet	1	0	0	X	10
Naphthol Red	1	0	0	X	-
Naples Yellow	1	0	0	X	5
Neutral Tint	1	0	0	X	7
Nickel Azo Yellow	1	0	0	X	11
Nickel Quinacridone Gold	1	0	0	X	11
Olive Green	1	0	0	X	2
Payne's Gray	1	0	0	X	2
Permanent Alizarin	1	0	0	X	-
Permanent Green Light	1	0	0	X	7
Permanent Green Pale	1	0	0	X	7
Phthalocyanine Blue	1	0	0	X	7
Phthalocyanine Blue Red Shade	1	0	0	X	7
Phthalocyanine Green	1	0	0	X	7
Phthalocyanine Green Yellow Shade	1	0	0	X	7
Prussian Blue	1	0	0	X	-
Pyrrrol Red	1	0	0	X	-
Quinacridone Red	1	0	0	X	-
Quinacridone Rose	1	0	0	X	-
Quinacridone Rust	1	0	0	X	-
Quinacridone Violet	1	0	0	X	-
Raw Sienna	1	0	0	X	8, 9
Raw Umber	1	0	0	X	8, 9, 10
Sap Green	1	0	0	X	7
Scarlet Pyrrrol	1	0	0	X	-
Sepia	1	0	0	X	2, 8, 9

M. Graham & Co. Material Safety Data Sheet

Watercolor & Gouache

Titanium White	1	0	0	X	12
Terra Rosa	1	0	0	X	9
Titanium White Opaque	1	0	0	X	12
Transparent Orange Iron Oxide	1	0	0	X	9
Transparent Red Iron Oxide	1	0	0	X	9
Transparent Yellow Iron Oxide	1	0	0	X	9
Turquoise	1	0	0	X	7
Ultramarine Blue	1	0	0	X	-
Ultramarine Pink	1	0	0	X	-
Ultramarine Violet	1	0	0	X	-
Ultramarine Violet Deep	1	0	0	X	-
Viridian	1	0	0	X	5
Yellow Ochre	1	0	0	X	9
Zinc White	1	0	0	X	13

SECTION II---HAZARDOUS INGREDIENTS INFORMATION

OSHA Permissible Exposure Limits

Code	Hazardous Components	CAS Number	TWA	STEL	Ceiling
1	Alumina	1344-28-1	10 mg/M ³	-	-
2	Carbon Black	1333-86-4	3.5 mg/M ³	-	-
3	Cadmium Sulfide	1306-23-6	200 µg/M ³	(as Cadmium) -	-
4	Cadmium Selenide	1306-24-7	200 µg/M ³	(as Cadmium) -	-
			.2 mg/M ³	(as Selenium) -	-
5	Chromium (III) Compounds	Varies	.5 mg/M ³	-	-
6	Cobalt Compounds	Varies	1 mg/M ³	-	-
7	Copper	7440-50-8	1 mg/M ³	-	-
8	Crystalline Silica	14808-60-7	.10 mg/M ³	-	-
9	Iron Oxide (as Fe)	1309-37-1	10 mg/M ³	-	-
10	Manganese Compounds (as Mn)	7439-96-5	-	-	5 mg/M ³
11	Nickel Metal & Compounds	Varies	1 mg/M ³	-	-
12	Titanium Dioxide	13463-67-7	10 mg/M ³	-	-
13	Zinc Oxide	1314-13-2	10 mg/M ³	-	-
14	Zinc Sulfide	1314-98-3	10 mg/M ³	-	-

TWA=Time Weighted Average (Average airborne exposure in an 8 hour work shift work week).

STEL=Short Term Exposure Limit (15 minute time weighted average exposure).

Ceiling=Exposure not to be exceeded during any part of the work day.

NE=None Established.

mg/M³=Approximate milligrams of substance per cubic meter of air.

µg/M³=Approximate micrograms of substance per cubic meter of air.

SECTION III---PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: >212°F/100°C

SPECIFIC GRAVITY (H2O=1): 1.1-2.0

VAPOR DENSITY: Heavier than air.

EVAPORATION RATE: Slower than ether.

V.O.C.: N/A

SOLUBILITY IN WATER: Dilutable.

APPEARANCE AND ODOR: Colored paste. No significant odor.

SECTION IV---FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A

METHOD USED: N/A

FLAMMABLE LIMITS IN AIR BY VOLUME-LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical, water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Use water to cool containers exposed to heat. Use self-contained breathing apparatus and full protective clothing for enclosed areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition and combustion products may be toxic.

SECTION V---REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: None known.

HAZARDOUS DECOMPOSITION: Usual products of combustion (for dry films only): carbon dioxide carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI---HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: None expected under normal use.

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Prolonged or repeated contact maybe irritating to eyes.

SKIN CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Prolonged or repeated contact may be irritating to skin.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: May cause irritation or pain to gastrointestinal system.

CARCINOGENICITY: Certain components of some pigments may be linked to carcinogenic response in animal tests or epidemiological data. See details below.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

TOXICOLOGICAL CERTIFICATION: All M. Graham & Co. products are certified by an independent toxicologist for conformity to ASTM D4236 under LHAMA in a manner consistent with Consumer Product Safety Commission Guidelines.

ADDITIONAL INFORMATION OR HAZARDS ASSOCIATED WITH SPECIFIED PIGMENTS, VEHICLES OR THEIR COMPONENTS:

AMORPHOUS SILICA- Slight skin irritant and mild eye irritant in animals.

CADMIUM- Cadmium Compounds are classified by IARC, NTP and OSHA as probably carcinogenic in humans through inhalation. Professional product. Not intended for use by children.

OSHA also classifies such compounds as causing lung and kidney disease. Pigmentary cadmium compounds have been shown to be significantly less biologically available and active than other compounds. Adverse effects of this mixture as an artists' color have not been demonstrated. All cadmium pigments used by M. Graham & Co. are selected and monitored to ensure low solubility. All Cadmium pigments used by M. Graham & Co. are certified as meeting all current EPA requirements for NON-HAZARDOUS disposable waste. This material should not be applied by spray due to potential for harmful effects in the lungs if inhaled. Reportable under 40 CFR 372-SARA TITLE III, Section 313.

CERULEAN BLUE: - Skin contact may cause allergic sensitization. Professional product. Not intended for use by children. Contains cobalt: cobalt compounds, when used as anti-foams, have caused cardiac damage when ingested with large quantities of fluids. (See also Chromium.) IARC lists cobalt and cobalt compounds as possible human carcinogens and notes inadequate evidence of carcinogenicity in humans based upon animal studies. See also **Cobalt**. The cobalt compound in this product has not been specifically identified as a possible carcinogen. Reportable under 40 CFR 372-SARA TITLE III, Section 313.

CRYSTALLINE SILICA- Considered a carcinogen through inhalation overexposure. It is also a known cause of silicosis, a non-cancerous lung disease. Reportable under 40 CFR 370-SARA TITLE III.

COBALT- Individuals hypersensitive to Cobalt may develop asthma, bronchitis, or shortness of breath. May cause skin sensitization. Professional product. Not intended for use by children. Cobalt compounds, when used as anti-foams, have caused cardiac damage when ingested with large quantities of fluids. IARC lists cobalt and cobalt compounds as possible human carcinogens and notes inadequate evidence of carcinogenicity in humans based upon animal studies. The cobalt compound in this product has not been specifically identified as a possible carcinogen. Reportable under 40 CFR 372-SARA TITLE III, Section 313.

CHROMIUM- Chromium and some of its compounds are considered carcinogenic, both in animals and humans. Evidence of CHROMIUM (III) compounds carcinogenicity, in pigment form is inconclusive. May cause delayed effects involving the respiratory system. Eye and skin irritant. Reportable under 40 CFR 372-SARA TITLE III, Section 313.

MANGANESE- Overexposure may affect the Central Nervous System and lungs, resulting in transitory psychosis, tiredness, weakness and pneumonitis. May aggravate preexisting neurological conditions. Reportable under 40 CFR 372-SARA TITLE III, Section 313.

QUINACRIDONES- May cause dermatitis. Eye, skin and respiratory irritant.

NICKEL- IARC and NTP state there is sufficient evidence of carcinogenicity in experimental animals and humans. Ingestion may result in damage to the testes.

PHTHALOCYANINES- May cause dermatitis. Eye, skin and respiratory irritant.

CARBON BLACK- IARC lists Carbon Black as "possibly carcinogenic to humans" IARC notes inadequate evidence of carcinogenicity in humans based on animal studies. It has not been listed by OSHA or NTP as a carcinogen.

ZINC- Overexposure may result in fever, chills, muscular pain or nausea.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Flush with water for 15 minutes. SEE DOCTOR if any symptoms persist.

SKIN CONTACT: Wash with soap and water. SEE DOCTOR if skin irritation occurs.

INHALATION: N/A

INGESTION: SEE DOCTOR if there are symptoms of exposure.

WARNING; the following products contain chemicals known to the State of California to cause cancer or reproductive harm: Cadmium Orange, Cadmium Red, Cadmium Red Light, Cadmium Yellow, Cadmium Yellow Deep, Cadmium Yellow Light, Cerulean Blue, Cerulean Blue Deep, Cobalt Blue, Cobalt Green, Cobalt Teal, Cobalt Violet, Nickel Azo Yellow, Nickel Quinacridone Gold

SECTION VII---PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike and contain with inert material. Transfer material to containers for recovery or disposal.

WASTE DISPOSAL METHOD: Dispose as per local, state or EPA regulations.

PRECAUTIONS IN HANDLING AND STORING: Avoid skin contact. Avoid freezing-product may coagulate.

OTHER PRECAUTIONS: None.

SECTION VIII---CONTROL MEASURES

RESPIRATORY PROTECTION: None required under normal use.

VENTILATION: None required under normal handling.

PROTECTIVE GLOVES; None required under normal use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required under normal use.

WORK/HYGIENIC PRACTICES: All M. Graham products should be used in accordance with safe handling practices, including: do not eat, drink or smoke when working with materials, avoid skin contact and wash after use. Keep materials out of reach of children.

SECTION IX---ADDITIONAL PRECAUTIONS AND INFORMATION

DISCLAIMER

WHILE WE BELIEVE THE DATA SET FORTH HEREIN IS ACCURATE AS OF THE DATE HEREOF, M. GRAHAM & CO. AND ITS AFFILIATED ENTITIES MAKE NO WARRANTIES EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE SUITABILITY OF ITS PRODUCTS FOR USE. THIS INFORMATION IS OFFERED SOLELY FOR THE BUYERS CONSIDERATION, INVESTIGATION AND VERIFICATION. ALL PRODUCTS ARE SOLD ON AN "AS IS" BASIS AND M. GRAHAM & CO. EXPRESSLY DISCLAIMS ANY WARRANTY AS TO THE MERCHANTABILITY OR FITNESS OF ITS PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE OF THE BUYER. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PRODUCTS IS WITH THE BUYER. IF THE PRODUCT PROVES DEFECTIVE AFTER PURCHASE, THE BUYER NOT THE MANUFACTURER ASSUMES THE ENTIRE COST OF ALL NECESSARY SERVICING OR REPAIR.

SECTION X---GUIDE TO HAZARDOUS MATERIAL IDENTIFICATION

I. *H=HEALTH HAZARD RATING*

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|----------------------|---|
| 4 - SEVERE HAZARD: | Life-threatening, major or permanent damage may result from single or repeated exposures. |
| 3 - SERIOUS HAZARD: | Exposure may result in major injury unless prompt action is taken and medical treatment is given. |
| 2 - MODERATE HAZARD: | Exposure may result in temporary or minor injury. |
| 1 - SLIGHT HAZARD: | Exposure may result in irritation or minor reversible injury. |
| 0 - MINIMAL HAZARD: | No significant risk to health. |

II. *F=FLAMMABILITY HAZARD RATING*

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| 4 - SEVERE HAZARD: | Very flammable gases or very volatile flammable liquids with Flash points below 73 ^o F and boiling points below 100 ^o F (NFPA Class 1A). |
| 3 - SERIOUS HAZARD: | Materials capable of ignition under almost all normal temperature conditions, including flammable liquids with flash points below 73 ^o F boiling points above 100 ^o F, as well as liquids with flash points between 73 ^o F and 100 ^o F (NFPA Class 1B and 1C). |
| 2 - MODERATE HAZARD: | Materials that must be moderately heated before ignition will occur, including flammable liquids with flash points at or above 100 ^o F but less than 200 ^o F (NFPA Class II and IIIA). |
| 1 - SLIGHT HAZARD: | Materials that must be preheated before ignition will occur. Flammable liquids in this category will have flash points at or above 200 ^o F (NFPA Class IIIB). |
| 0 - MINIMAL HAZARD: | Materials that will not burn. |

III. *R=REACTIVITY*

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|--------------------|---|
| 4 - SEVERE HAZARD: | Materials that are readily capable of detonation or explosive decomposition at normal temperatures and pressures. |
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- 3 - SERIOUS HAZARD: Materials that are capable of detonation or explosive reaction but require a strong initiating force or that must be heated under confinement before initiation, or materials that react explosively with water.
- 2 - MODERATE HAZARD: Materials that are normally unstable and will readily undergo violent chemical change but will not detonate. These materials may also react violently with water.
- 1 - SLIGHT HAZARD: Materials that are normally stable, but which can become unstable at elevated temperatures and pressures. These materials may react with water but will not release energy violently.
- 0 - MINIMAL HAZARD: Materials that are normally stable, even under fire conditions, and will not react with water.

IV. *P=PROTECTIVE EQUIPMENT INDEX*

- A** - Safety glasses
- B** - Safety glasses, gloves
- C** - Safety glasses, gloves, synthetic apron
- D** - Face shield, gloves, synthetic apron
- E** - Safety glasses, gloves, dust respirator
- F** - Safety glasses, gloves, synthetic apron, dust respirator
- G** - Safety glasses, gloves, vapor respirator
- H** - Splash goggles, gloves, synthetic apron, vapor respirator
- I** - Safety glasses, gloves, dust & vapor respirator
- J** - Splash goggles, gloves, synthetic apron, and dust & vapor respirator
- K** - Air line hood or mask, gloves, full suit, boots
- X** - Ask your supervisor for special handling instructions