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**MATERIAL SAFETY DATA SHEET**

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FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 202)

The John G. Marshall Mfg. Co., Inc.  
P.O. Box 649  
Deerfield, IL 60015

DATE OF PREP  
2-1-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DA)  
INFORMATION TELEPHONE NO. 312-478-7111

**SECTION I**

PRODUCT NUMBER: #28  
PRODUCT NAME: Titanium White Photo Oil Color  
PRODUCT CLASS: Color in oil.

**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Ethyl Alcohol	64-17-5	> 0.5%	1000 PPM		40		IDL, 50 mg/kg
Zinc Oxide	1314-13-2	15.4%	5 mg/m <sup>3</sup>				IDL, 600 mg/m <sup>3</sup> /PUH

**SECTION III — PHYSICAL DATA**

BOILING RANGE: N/A  
EVAPORATION RATE:  FASTER THAN ETHER  SLOWER THAN ETHER  
VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
PERCENT VOLATILE BY VOLUME: 0.5%  
WEIGHT PER GALLON: 15.7 lbs/gal.

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**

FLAMMABILITY CLASSIFICATION: OSHA III A DOT  
FLASH POINT: 150°F. LEL: ---  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL"  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids: ~~soak~~ with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement. Use water to keep fire-exposed containers cool. See special precautions on burning.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleaner followed by washing with soap and warm water.

**INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or carbon monoxide.

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents; violent reaction with  $Cl_2$ , chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage use or disposal of the product. Data in this Material Safety Data Sheet is accurate and reliable to the best of our knowledge and belief and relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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**MATERIAL SAFETY DATA SHEET**FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 201)

The John G. Marshall Mfg. Co., Inc.

P.O. Box 649  
Deerfield, IL 60015DATE OF PREP  
2-1-88EMERGENCY TELEPHONE NO. 312-478-7111 (D)  
INFORMATION TELEPHONE NO. 312-478-7111**SECTION I**PRODUCT NUMBER: #14  
PRODUCT NAME: Ivory Black Photo Oil Color.  
PRODUCT CLASS: Color in oil.**SECTION II -- HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Alumina Hydrate	21645-51-2	19.3%	High (IPR)				TDL <sub>0</sub> 122 mg/kg/4D
Ethyl Alcohol	64-17-5	> 0.5%	1000 PPM		40		TDL <sub>0</sub> 50 mg/kg

**SECTION III -- PHYSICAL DATA**BOILING RANGE: N/A  
EVAPORATION RATE:  FASTER THAN ETHER  
 SLOWER THAN ETHER  
VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
PERCENT VOLATILE BY VOLUME: 0.5%  
WEIGHT PER GALLON: 11.0 lbs./gal.**SECTION IV -- FIRE AND EXPLOSION HAZARD DATA**FLAMMABILITY CLASSIFICATION: OSHA III A  
DOT  
FLASH POINT: 145°F. LEL: ----  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER FOG  OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids: soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement Use water to keep fire-exposed containers cool.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleaner followed by washing with soap and warm water. **INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or carbon monoxide, some NO may be emitted.

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents: violent reaction with  $Cl_2$ , chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage use or disposal of this product.

Data in this Material Safety Data Sheet is accurate and reliable to the best of our knowledge and does not relate to use in combination with any other material or in any process.

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SPECTRA COLORS CORP.  
BACHMEIER COLORS DIV.  
25 RIZZOLO ROAD  
KEARNY, NJ 07032  
PHONE: 201-997-0606 - FAX 201-997-0504

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DYES

DATE - AUG 05, 1991

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MATERIAL SAFETY DATA SHEET

SECTION I IDENTIFICATION:

Spectra Number Product Name  
3.AC.W0120 SPEC W/S VERONA BROWN A12895

Color Index Name  
ACID BROWN A128950

C. A. S. No.: Chemical Family  
MIXTURE DISAZO & MONOAZO DYES

Color Index No.:  
NONE

WARNING - CAUTION:

Handle with CARE. AVOID over exposure. Use NIOSH/OSHA APPROVED RESPIRATOR, WORK GLOVES and CLOTHING. WASH after handling. SENSITIVE INDIVIDUALS MAY EXPERIENCE RESPIRATORY ALLERGIES. MAY CAUSE SKIN IRRITATION. USE WITH LOCAL VENTILATION.

SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

COMPONENT CAS NO. HAZARD  
ACID RED 027 UN1602 915.67.3 10 POSSIBLE CARCINOGENS  
POSSIBLE CARCINOGEN: SUSPECTED CARCINOGEN BASED ON LABORATORY TESTS. OVEREXPOSURE MAY CREATE CANCER RISK.

SARA TITLE III, Section 313: LISTED

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point ND Specific Gravity (H2O=1) ND  
Vapor pressure (MM HG) = H2O ND Melting Point ND  
Vapor Density (AIR=1) ND Evaporation Rate (BUTYL ACT=1) ND  
Molecular Weight ND PH Factor ND

Solubility in Water SOLUBLE  
Appearance and Odor POWDER, NO ODOR

SECTION IV - HEALTH HAZARD DATA: (ACUTE & CHRONIC)

Effects of overexposure:  
Moderately irritation to eyes & skin may result on contact.  
Ingestion may result in gastric disturbances.  
Inhalation of dusts may irritate the respiratory tract.  
Inhalation: YES  
Skin: YES  
Ingestion: YES  
Eyes: YES

Signs and symptoms of overexposure:  
Overexposed person may notice coloration of skin (same color as handled). Possible irritation.

Medical conditions generally aggravated by exposure:

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No data available on skin contact or inhalation. Persons with impaired pulmonary function or skin disorders may be more susceptible to the effects of this product on any type of dusty material. HANDLE WITH CARE, AVOID OVEREXPOSURE.

Carcinogenicity NTP: NO  
IARC: NO  
QSHA Regulated: NO

**Exposure Limits:**

No exposure limits have been determined or found in existing published studies. It is suggested that this product be used in accordance with good industrial practices.  
HANDLE THIS PRODUCT WITH CARE. AVOID PERSONAL CONTACT

**Toxicity Data:**

Oral (Animal):  
NO DATA AVAILABLE.  
Dermal (Animal):  
NO DATA AVAILABLE.  
Inhalation (Animal):  
NO DATA AVAILABLE.  
Effects to eyes (Animal):  
NO DATA AVAILABLE.  
Skin Irritation (Animal):  
NO DATA AVAILABLE.  
Fish, LC50 (Lethal):  
NO DATA AVAILABLE.  
Additional Data:  
NO DATA AVAILABLE

**HMIS Code:**

H:1 OVER EXPOSURE MAY CAUSE IRRITATION.  
F:0 NORMALLY STABLE.  
R:0 STABLE.  
P:0 NIOSH / OSHA APPROVED DUST RESPIRATOR, GLOVES, APRON & GOGGLES.

**SECTION V - EMERGENCY AND FIRST-AID PROCEDURES:**

EYE CONTACT: Flush with plenty of cool water for at least 15 minutes, holding eyelids apart for thorough irrigation. Get immediate medical attention.  
SKIN CONTACT: Wash affected area thoroughly with soap and water. If any irritation develops, consult a Physician.  
INHALATION: Remove to fresh air. If breathing is difficult, give oxygen and get immediate medical attention.  
INGESTION: Induce vomiting - seek immediate medical attention

**SECTION VI - FIRE AND EXPLOSION HAZARD DATA:**

Flash Point F (C): NORMALLY STABLE, NOT COMBUSTIBLE NOR FLA  
Flammable Limits: NORMALLY STABLE, NOT COMBUSTIBLE NOR FLA  
Extinguishing Media: WATER, DRY CHEMICAL, CARBON DIOXIDE, FOAM  
Special Fire Fighting Procedures: WEAR SELF-CONTAINED BREATHING APPARATUS.

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Unusual Fire & Explosion Procedures:
NONE EXPECTED. FIREFIGHTERS SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS TO GUARD AGAINST POTENTIALLY TOXIC AND IRRITATING FUMES. AVOID DUSTING. DUST CAN FORM EXPLOSIVE MIXTURES WITH AIR.

SECTION VII - REACTIVITY DATA:

Stability: STABLE
Polymerization: HAZARDOUS POLYMERIZATION WILL NOT OCCUR.
Conditions and Materials to avoid: OXIDIZING & REDUCING AGENTS MAY DESTROY COLOR.
Hazardous Decomposition Products: CO, CO2, OXIDES OF NITROGEN AND OTHER POTENTIALLY TOXIC FUMES.

SECTION VIII - CONTROL MEASURES:

Environmental: Avoid any uncontrolled release of material.
Precautions: Where spills are possible a comprehensive spill response plan should be developed and implemented.
Steps to be taken if material is released or spilled: Utilize recommended protective clothing and equipment. Spills should be swept up using an absorbant dust control product and placed in containers. Spill area can be washed with water. Collect water for approved disposal. In the event of an uncontrolled release of this material the user should determine if the release is reportable under applicable laws and regulations.

CERCLA: NOT REGULATED.
RCRA status: NOT REGULATED.
Section 302: NOT REGULATED.
Section 313: REPORTABLE.

NOTES:
A hazard evaluation of this product has been performed. This product is identified as a hazardous chemical under the criteria of the O S H A Hazard Communication Standard (29 CFR 1910.1200).

SECTION IX - PRECAUTIONS FOR SAFE HANDLING & USE:

Respiratory Protection: Use an OSHA/NIOSH approved dust mask/respirator
Ventilation: Local exhaust is preferred and most effective. Mechanical and general ventilation is less effective. Use natural ventilation if possible.
Protective gloves: Plastic or rubber gloves.
Eye Protection: Safety goggles or full face shield.
Protective clothing/equip: Coveralls & non-leather soled work shoes
Work/Hygienic practices: Wash dye contaminated clothes & skin with mild soaps and detergents.
Special precautions: In accordance with good industrial practice. handle this product with care and avoid personal contact.

SECTION X - TRANSPORTATION INFORMATION

D.O.T. Shipping Name : NONE
Technical Shipping Name : ACID BROWN A128950
D.O.T. Hazard Class : NONE

UN/NA Number :
Item Numbers: 00426-1009

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DATE AUG 05, 1991  
 Product Reportable Qty : NONE  
 D. T. Labels Required : NONE  
 D.O.T. Placards : NONE  
 Freight Class Bulk : DYES, DRY EARTH PAINTS CLASS 55  
 Freight Class Package : DYES, DRY EARTH PAINTS CLASS 55  
 Product Label : SPEC W/S VERONA BROWN A12895

SECTION XI - REGULATORY INFORMATION:

TSCA : IN COMPLIANCE  
 SARA : THIS PRODUCT CONTAINS TOXIC CHEMICALS SUBJECT TO THE REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND CFR 372

Acute : YES  
 Chronic : YES  
 Flammable : NO  
 Reactive : NO  
 Oxidizer : NO

THIS PRODUCT AND/OR INGREDIENTS USED TO MAKE THIS PRODUCT ARE LISTED IN THE T.S.C.A CHEMICAL SUBSTANCES INVENTORY. THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND OR IMPLIED IS MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN. THIS M.S.D.S. WAS PREPARED TO COMPLY WITH THE OSHA HAZARD COMMUNICATION STANDARD [29 CFR 1910.1200]. THIS SUPERSEDES ANY PREVIOUS INFORMATION

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# MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 20)

The John G. Marshall Mfg. Co., Inc.  
P.O. Box 649  
Deerfield, IL 60015

DATE OF PREP  
2-1-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DA  
INFORMATION TELEPHONE NO. 312-478-7111

## SECTION I

PRODUCT NUMBER: #37  
PRODUCT NAME: Fresh Photo Oil Color  
PRODUCT CLASS: Color in oil.

## SECTION II — HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Alumina Hydrate	21645-51-2	22.7%	High (IPR)				TDL, 122 mg/kg/4D
Ethyl Alcohol	64-17-5	> 0.5%	1000 PPM		40		TDL, 50 mg/kg

## SECTION III — PHYSICAL DATA

BOILING RANGE: N/A VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
EVAPORATION RATE:  FASTER THAN ETHER PERCENT VOLATILE BY VOLUME: 0.5%  
 SLOWER THAN ETHER WEIGHT PER GALLON: 11.3 lbs/gal.

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: OSHA III A FLASH POINT: 150°F. LEL: ----  
DOT: \_\_\_\_\_  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FCG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids; soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement Use water to keep fire-exposed containers cool.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleanser followed by washing with soap and warm water. **INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or carbon monoxide.

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents; violent reaction with  $Cl_2$ , chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage use or disposal of the product. This Material Safety Data Sheet is accurate and reliable to the best of our knowledge and belief and relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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**MATERIAL SAFETY DATA SHEET**

FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 20)

The John G. Marshall Mfg. Co., Inc.  
P.O. Box 649

DATE OF PREP

Deerfield, IL 60015

EMERGENCY TELEPHONE NO. 312-478-7111 (DAY

7-1-88

INFORMATION TELEPHONE NO. 312-478-7111

**SECTION I**

PRODUCT NUMBER: #22

PRODUCT NAME: Oxide Green Photo Oil Colors

PRODUCT CLASS: Color in Oil.

**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Ethyl Alcohol	64-17-5	< 0.5%	1000 PPM		40		TDL. 50mg/kg
Alumina Hydrate	21645-51-2	9.7%	High (IPR)				TDL. 122 mg/kg/40
Cadmium Zinc Sulfide	8048-07-5	47.2%	0.5mg/m <sup>3</sup>	.2 mg/m <sup>3</sup>			LD <sub>50</sub> 5g/kg

**SECTION III — PHYSICAL DATA**

BOILING RANGE: N/A

VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR

EVAPORATION RATE:  FASTER THAN ETHER

PERCENT VOLATILE BY VOLUME: 0.5%

SLOWER THAN ETHER

WEIGHT PER GALLON: 13.3 lbs/gal.

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**

FLAMMABILITY CLASSIFICATION: OSHA IIIA  
DOT

FLASH POINT: 147°F LEL:

EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids; soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement. Use water to keep fire-exposed containers cool. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention. Full protection equipment including self-contained breathing apparatus should be used.

FORM NO. 205-8/86

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleaner followed by washing with soap and warm water.

**INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or

carbon monoxide, Halogen, halogen acid NO<sub>x</sub>, ammonia, and X carbonyl Halide.

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents: violent reaction with Cl<sub>2</sub>, chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage use or disposal of the product. This Material Safety Data Sheet is accurate and reliable to the best of our knowledge and belief and relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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**MATERIAL SAFETY DATA SHEET**FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 20)

The John G. Marshall Mfg. Co., Inc.

P.O. Box 649

Deerfield, IL 60015

DATE OF PREP  
2-1-88EMERGENCY TELEPHONE NO. 312-478-7111 (D)  
INFORMATION TELEPHONE NO. 312-478-7111**SECTION I**PRODUCT NUMBER: #30  
PRODUCT NAME: Ultramarine Blue Photo Oil Color  
PRODUCT CLASS: Color in oil.**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Ethyl Alcohol	64-17-5	> 0.5%	1000 PPM		40		TDL <sub>o</sub> 50 mg/kg
Alumina Hydrate	21645-51-2	14.0%	High (IPR)				TDL <sub>o</sub> 122 mg/kg/4D
Sodium Alumino Sulphosilicate	57455-37-5	28.1%	10 mg/m <sup>3</sup>				LD <sub>50</sub> 10 gr/kg

**SECTION III — PHYSICAL DATA**BOILING RANGE: N/A  
EVAPORATION RATE:  FASTER THAN ETHER  
 SLOWER THAN ETHER  
VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
PERCENT VOLATILE BY VOLUME: 0.5%  
WEIGHT PER GALLON: 10.8 lbs/gal.**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**FLAMMABILITY CLASSIFICATION: OSHA III A FLASH POINT: 151°F. LEL: ----  
DOT \_\_\_\_\_  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER FOG  OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids: soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement Use water to keep fire-exposed containers cool.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleaner followed by washing with soap and warm water. **INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or carbon monoxide., with acids hydrogen sulphide is released

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents: violent reaction with Cl<sub>2</sub>, chlorinated rubber, and acids.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage use or disposal of the product.

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**MATERIAL SAFETY DATA SHEET**FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 201)The John G. Marshall Mfg. Co., Inc.  
P.O. Box 649  
Deerfield, IL 60015

DATE OF PREP

2-1-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DA)

INFORMATION TELEPHONE NO. 312-478-7111

**SECTION I**

PRODUCT NUMBER: #12

PRODUCT NAME: Chinese Blue Photo Oil Color.

PRODUCT CLASS: Color in oil.

**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Ethyl Alcohol	64-17-5	>0.5%	1000 PPM		40		TDL <sub>o</sub> 50 mg/kg
Alumina Hydrate	21645-51-2	37.5%	High (IPR)				TDL <sub>o</sub> 122 mg/kg/4D

**SECTION III — PHYSICAL DATA**

BOILING RANGE: N/A

EVAPORATION RATE:  FASTER THAN ETHER SLOWER THAN ETHERVAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR

PERCENT VOLATILE BY VOLUME: 0.5%

WEIGHT PER GALLON: 10.9 lbs/gal.

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**FLAMMABILITY CLASSIFICATION: OSHA III A  
DOT \_\_\_\_\_

FLASH POINT: 147°F.

LEL: ---

EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER FOG  OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids: soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement Use water to keep fire-exposed containers cool.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Repeated and prolonged inhalation or ingestion of Cadmium Compounds may cause delayed effects involving the respiratory and renal systems. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** Not available. Not believed to be acutely toxic. May cause effects of chronic Cadmium toxicity.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **INGESTION:** Give large quantities of water, induce vomiting. Call a physician. **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleanser followed by washing with soap and warm water. **INHALATION:** Expose individual to fresh air source.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Fire conditions or above 1000°F may emit SO<sub>2</sub> Gas and Cadmium Oxide fumes. H<sub>2</sub>S gas in contact with strong acids. **CONDITIONS TO AVOID:** Fire conditions and contact with strong acids. Handling of films can create dust containing Cadmium, use respirator. **INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents, acids, violent reaction with Cl<sub>2</sub>, Chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material, transferred into closed metal container for disposal as hazardous waste. Large spills can be scooped up and salvaged.

**WASTE DISPOSAL METHOD:** Treat as hazardous material. Dispose of in accordance with Federal, State and Local Regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed unless product is being sprayed; then use respiratory device approved by NIOSH/MSHA for protection against spray mist and vapors.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** safety glasses

**OTHER PROTECTIVE EQUIPMENT:** Wash contaminated clothing, discard contaminated shoes.

**HYGIENIC PRACTICES:** Wash thoroughly before eating, smoking or chewing gum. Do not apply product to any materials or containers used in the food industry.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Do not store near any food or food products. Avoid accumulation of contaminated rags or wiping materials by immediately soaking them in water and collect in metal container for disposal.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

Data in this Material Safety Data Sheet is accurate and reliable to the best of our knowledge and belief and relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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**MATERIAL SAFETY DATA SHEET**

FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor, "Essentially Similar" to Form OSHA 20)

The John G. Marshall Co., Inc.  
P.O. Box 649  
Deerfield, IL 60015

DATE OF PREP  
7-1-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DA)  
INFORMATION TELEPHONE NO. 312-478-7111

**SECTION I**

PRODUCT NUMBER: #17  
PRODUCT NAME: Lipstick Red Photo Oil Color  
PRODUCT CLASS: Color in Oil.

**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Ethyl Alcohol	64-17-5	<0.5%	1000 PPM		40		LDL. 50 mg/kg
Alumina Hydrate	21645-51-2	25.6%	High (LFR)				LDL. 122 mg/kg/40
Lead Chromate	7758-97-6	2.1%	.05mg/m <sup>3</sup>				CYT-hmm 13mmol/l SCE-hmm 20mmol/l
Chromium VI is considered a Carcinogen							

**SECTION III — PHYSICAL DATA**

BOILING RANGE: N/A  
EVAPORATION RATE:  FASTER THAN ETHER  SLOWER THAN ETHER  
VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
PERCENT VOLATILE BY VOLUME: 0.5%  
WEIGHT PER GALLON:

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**

FLAMMABILITY CLASSIFICATION: OSHA IIIA DOT  
FLASH POINT: 152°F LEL:  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids, soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement. Use water to keep fire-exposed containers cool. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention. Full protection equipment including self-contained breathing apparatus should be used.

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**SECTION V — HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** None reported.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** **EYE CONTACT:** Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. **SKIN CONTACT:** May be removed from skin with waterless cleaner followed by washing with soap and warm water. **INHALATION:** Expose individual to fresh air source. **INGESTION:** Keep person warm and quiet, seek medical advice for prevention of possible dehydration.

**SECTION VI — REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may yield carbon dioxide and/or carbon monoxide, ammonia, hydrogen cyanide & NO.

**CONDITIONS TO AVOID:** Keep from contact with oxidizing materials.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong oxidizing agents: violent reaction with  $Cl_2$ , chlorinated rubber.

**SECTION VII — SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

**WASTE DISPOSAL METHOD:** Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII — SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety Glasses.

**OTHER PROTECTIVE EQUIPMENT:** Prevent repeated or prolonged skin contact.

**HYGIENIC PRACTICES:** Eyewashes in the workplace are recommended.

**SECTION IX — SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water. Freshly formed fumes, as from burning may cause metal fume fever with chills, fever, tightness in chest, cough and leukocytes.

**OTHER PRECAUTIONS:** The condition of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in anyway connected with the handling, storage, use or disposal of this product.

Data in this Material Safety Data Sheet is accurate and reliable to the best of our knowledge and belief and relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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**MATERIAL SAFETY DATA SHEET**

The John G. Marshall Mfg. Co., Inc.  
P.O. Box 649  
Deerfield, IL 60015

DATE OF PREP  
7-3-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DA)  
INFORMATION TELEPHONE NO. 312-478-7111

**SECTION I**

PRODUCT NUMBER: #7  
PRODUCT NAME: Cadmium Yellow Photo Oil Colors  
PRODUCT CLASS: Color in Oil.

**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS	VAPOR PRESSURE	TOXICITY DATA
Ethyl Alcohol	64-17-5	<0.5%	TLV 1000 PPM	FEL mm Hg 40	TDL <sub>0</sub> 50mg/kg
Alumina Hydrate	21645-51-2	6.6%	High (IPR)		TDL <sub>0</sub> 122 mg/kg/40
Cadmium Zinc Sulfide	8048-07-5	48.2%	.05mg/m <sup>3</sup>	.02 mg/m <sup>3</sup>	LD <sub>50</sub> 5g/kg

**SECTION III — PHYSICAL DATA**

BOILING RANGE: N/A  
EVAPORATION RATE:  FASTER THAN ETHER  
 SLOWER THAN ETHER  
VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
PERCENT VOLATILE BY VOLUME: 0.5%  
WEIGHT PER GALLON: 12.9 lbs/gal.

**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**

FLAMMABILITY CLASSIFICATION: OSHA IIIA  
FLASH POINT: 152°F  
LEL:  
EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids; soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement. Use water to keep fire-exposed containers cool. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention. Full protection equipment including self-contained breathing apparatus should be used.

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**SECTION V - HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Prolonged inhalation or ingestion of Cadmium Compound may cause delayed effects involving the respiratory and renal systems. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis after long exposure on skin.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** Not available. Not believed to be acutely toxic. May cause effects of chronic Cadmium toxicity.

**PRIMARY ROUTE(S) OF ENTRY:**  DERMAL  INHALATION  INGESTION

**EMERGENCY AND FIRST AID PROCEDURES:** INGESTION: Give large quantities of water, induce vomiting. Call a physician. EYE CONTACT: Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. SKIN CONTACT: May be removed from skin with waterless cleaner followed by washing with soap and warm water. INHALATION: Expose individual to fresh air source.

**SECTION VI - REACTIVITY DATA**

**STABILITY:**  UNSTABLE  STABLE Spontaneous combustion can occur.

**HAZARDOUS POLYMERIZATION:**  MAY OCCUR  WILL NOT OCCUR

**HAZARDOUS DECOMPOSITION PRODUCTS:** Fire conditions or above 1000°F may emit SO<sub>2</sub> Gas and Cadmium Oxide fumes. H<sub>2</sub>S gas in contact with strong acids  
**CONDITIONS TO AVOID:** Fire conditions and contact with strong acids. Sanding or films can create dust containing Cadmium, use respirator.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents, acids, violent reaction with Cl<sub>2</sub>, Chlorinated rubber.

**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills can be picked up with absorbent material, transferred into closed metal container for disposal as hazardous wastes. Large spills can be scooped up and salvaged.

**WASTE DISPOSAL METHOD:** Treat as hazardous material. Dispose of in accordance with Federal, State and Local Regulations.

**SECTION VIII - SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** Not normally needed unless product is being sprayed; then use respiratory devices approved by NIOSH/MSHA for protection against spray mist and vapors.

**VENTILATION:** Intermittent clean air exchanges recommended.

**PROTECTIVE GLOVES:** Neoprene rubber gloves.

**EYE PROTECTION:** Safety Glasses

**OTHER PROTECTIVE EQUIPMENT:** Wash contaminated clothing, discard contaminated shoes.

**HYGIENIC PRACTICES:** Wash thoroughly before eating, smoking or chewing gum. Do not apply product to any materials or containers used for the food industry.

**SECTION IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Do not store near any food or food products. Avoid accumulation of contaminated rags or wiping materials by immediately soaking them in water and collect in metal container for disposal.

**OTHER PRECAUTIONS:** The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

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**MATERIAL SAFETY DATA SHEET**FOR COATINGS, RESINS AND RELATED MATERIALS  
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 20)

The John G. Marshall Mfg. Co., Inc.

P.O. Box 649

Deerfield, IL 60015

DATE OF PREP

2-1-88

EMERGENCY TELEPHONE NO. 312-478-7111 (DAY  
INFORMATION TELEPHONE NO. 312-478-7111**SECTION I**PRODUCT NUMBER: #44  
PRODUCT NAME: Extender Photo Oil  
PRODUCT CLASS: Color in oil.**SECTION II — HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE		TOXICITY DATA
			TLV	PEL	mm	Hg	
Alumina Hydrate	21645-51-2	40.9%	High (IPR)				IDL. 122 mg/kg/4D
Ethyl Alcohol	64-17-5	> 0.5%	1000 PPM		40		IDL. 50 mg/kg

**SECTION III — PHYSICAL DATA**BOILING RANGE: N/A VAPOR DENSITY:  HEAVIER  LIGHTER THAN AIR  
VAPORATION RATE:  FASTER THAN ETHER PERCENT VOLATILE BY VOLUME: 0.5%  
 SLOWER THAN ETHER WEIGHT PER GALLON: 9.8 lbs/gal.**SECTION IV — FIRE AND EXPLOSION HAZARD DATA**FLAMMABILITY CLASSIFICATION: OSHA III A FLASH POINT: 148°F. LEL: ---  
DOT: ---EXTINGUISHING MEDIA:  FOAM  "ALCOHOL" FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER  OTHER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Rags and waste paper containing this material may heat and burn spontaneously. Store wiping materials in metal cans with tight lids: soak with water.

SPECIAL FIREFIGHTING PROCEDURES: Avoid use of water, but if only alternative, implement Use water to keep fire-exposed containers cool.

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**SECTION V -- HEALTH HAZARD DATA**

EFFECTS OF OVEREXPOSURE: Inhalation of product may cause mild irritation of nose and throat. Eye contact may cause redness and tearing. Sensitive individuals may experience dermatitis, after long exposure on skin. Ingestion of large amounts may cause gastro-intestinal upset.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: None reported.

PRIMARY ROUTE(S) OF ENTRY:  DERMAL  INHALATION  INGESTION

EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT: Flush with clean lukewarm water for at least 15 minutes, occasionally lifting eyelids. SKIN CONTACT: May be removed from skin with waterless cleaner followed by washing with soap and warm water.

INHALATION: Expose individual to fresh air source. INGESTION: Keep person warm and quiet; seek medical advice for prevention of possible dehydration.

**SECTION VI -- REACTIVITY DATA**

STABILITY:  UNSTABLE  STABLE Spontaneous combustion can occur.

HAZARDOUS POLYMERIZATION:  MAY OCCUR  WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield carbon dioxide and/or carbon monoxide.

CONDITIONS TO AVOID: Keep from contact with oxidizing materials.

COMPATIBILITY (MATERIALS TO AVOID): Avoid contact with strong oxidizing agents: violent reaction with  $Cl_2$ , chlorinated rubber.

**SECTION VII -- SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Small spills can be picked up with absorbent material and transferred into closed metal containers and soaked with water. Large spills can be scooped up and put into containers and salvaged.

WASTE DISPOSAL METHOD: Carefully incinerate or use secure landfill or special waste landfill in accordance with local, state and federal regulations.

**SECTION VIII -- SAFE HANDLING AND USE INFORMATION**

RESPIRATORY PROTECTION: Not normally needed.

VENTILATION: Intermittent clean air exchanges recommended.

PROTECTIVE GLOVES: Neoprene rubber gloves.

FACE PROTECTION: Safety glasses.

OTHER PROTECTIVE EQUIPMENT: Prevent repeated or prolonged skin contact.

HYGIENIC PRACTICES: Eyewashes in the workplace are recommended.

**SECTION IX -- SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid accumulation of contaminated rags or wiping materials by immediate immersion in water.

OTHER PRECAUTIONS: The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we

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BRANDESS KALT AETNA GROU

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**MATERIAL SAFETY DATA SHEET**

**PRODUCT NAME:** MARSHALL PM SOLUTION **DATE:** 04/20/02  
**PRODUCT CODE(S):** MS-PMS; MS-PMS-1; MS-PMS 1/2 oz in Introductory Oil Set

**SECTION I PRODUCT IDENTIFICATION**  
**MANUFACTURER:** BRANDESS/KALT/AETNA  
701 CORPORATE WOODS PKWY  
VERNON HILLS, IL 60061

INFORMATION AND EMERGENCY PHONE DURING BUSINESS HOURS 847-478-7111

FOR EMERGENCY ASSISTANCE INVOLVING A SPILL, LEAK, OR FIRE WITH THIS  
PRODUCT CALL CHEMTREC 800-424-9300.

**PHYSICAL DATA:** BLENDED SOLUTION  
**SYNONYMS:** NONE

**SECTION II HAZARDOUS INGREDIENTS**

COMPONENTS	CAS #	WEIGHT %
TURPENTINE	8006-64-2	Less than 90%

**SECTION III PHYSICAL / CHEMICAL CHARACTERISTICS**

**BOILING POINT:** 7300°F  
**COLOR:** WATER-WHITE  
**SOLUBILITY IN WATER:** NEGLIGIBLE  
**EVAPORATION RATE:** SLOWER THAN ETHER  
**STABILITY:** PRODUCT IS STABLE UNDER NORMAL CONDITIONS

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** 90°F (CLOSED CUP)  
**FLAMMABLE LIMITS:** FLAMMABLE LIQUID - CLASS 1C  
**EXTINGUISHING MEDIA:** CARBON DIOXIDE, DRY CHEMICAL, FOAM, OR SAND  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** MATERIAL IS A MODERATE FIRE AND  
EXPLOSION HAZARD. USE ONLY WATER TO KEEP FIRE -EXPOSED  
CONTAINERS COOL. WEAR SELF-CONTAINED BREATHING APPARATUS  
PRESSURE-DEMAND (MSHA/NIOSH APPROVED OR EQUIVALENT) AND FULL  
PROTECTIVE GEAR.  
**UNUSUAL FIRE & EXPLOSION HAZARDS:** FLAMMABLE. VAPORS MAY CAUSE A  
FLASH FIRE AND EXPLOSION HAZARD. VAPORS MAY TRAVEL CONSIDERABLE  
DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

**SECTION V REACTIVITY DATA**

**CONDITIONS TO AVOID:** HEAT, SPARKS, OPEN FLAMES, AND OXIDIZING  
MATERIALS.  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** CHANCE OF THERMAL  
DECOMPOSITION MAY YIELD CARBON DIOXIDE AND/OR CARBON MONOXIDE.  
**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

## MARSHALL PM SOLUTION

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**SECTION VI HEALTH HAZARD DATA**

**CHRONIC EFFECTS OF OVEREXPOSURE/CARCINOGENICITY:** MAY CAUSE PREDISPOSITION TO PNEUMONIA AND CHRONIC NEPHRITIS. CHRONIC EXPOSURE CAN PRODUCE ALLERGENIC SENSITIZATION. THE NATIONAL TOXICOLOGY PROGRAM (NTP) CONCLUDED THAT TWO-YEAR GAVAGE STUDIES WITH d-LIMONENE, A COMPONENT OF THIS PRODUCT, INDICATE CLEAR EVIDENCE OF CARCINOGENIC ACTIVITY I MALE RATS, BUT NOT IN FEMALE RATS, NOR IN MALE OR FEMALE MICE. HOWEVER, INVESTIGATION OF THE METABOLISM OF d-LIMONENE IN VARIOUS SPECIES SUGGESTS THESE FINDINGS ARE NOT RELEVANT TO HUMAN RISK ASSESSMENT. d-LIMONENE IS NOT LISTED AS A CARCINOGEN BY THE NTP. IT IS NOT REGULATED AS A CARCINOGEN BY OSHA AND HAS NOT BEEN EVALUATED BY IARC. OTHER COMPONENTS OF THIS PRODUCT ARE NOT LISTED AS CARCINOGENS BY NTP, IARC, OR OSHA.

**SARA TITLE III HAZARD CATEGORIES:** FIRE HAZARD, IMMEDIATE (ACUTE) HEALTH HAZARD AND DELAYED (CHRONIC) HEALTH HAZARD.  
**CALIFORNIA PROPOSITION 65:** THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**EMERGENCY AND FIRST AID PROCEDURES:** :

**EYES:** IF IRRITATION, TEARING AND REDNESS PERSISTS, CONSULT A PHYSICIAN IMMEDIATELY.

**SKIN:** WASH AFFECTED AREA WITH WARM SOAPY WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION.

**INHALATION:** REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, CONSULT A PHYSICIAN.

**IF SWALLOWED:** GET MEDICAL ATTENTION IMMEDIATELY.

**SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE**

**IF SMALL RELEASE:** ADD SAND, SCOOP OR SWEEP INTO DISPOSAL CONTAINER AND HOSE DOWN AREA.

**WASTE DISPOSAL METHOD:** COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

**STORAGE AND HANDLING:** STORE IN A COOL, DRY AREA AWAY FROM HEAT AND OPEN FLAMES.

**SECTION VIII CONTROL MEASURES**

**RESPIRATORY PROTECTION:** USE IN A WELL-VENTILATED AREA.

**VENTILATION:** LOCAL, ADEQUATE EXHAUST

**EYES:** WEAR CHEMICAL SAFETY GOGGLES

**PROTECTIVE GLOVES:** NEOPRENE RUBBER GLOVES

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