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**-4783**  
**-4793**

**MATERIAL SAFETY DATA SHEET**

Michael Harding's Artists Oil Colours.

**SERIES 1 - 2 - 5 - 7 (TOXIC, NON HAZARDOUS, NON FLAMMABLE)**

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION (A PREPARATION IS A MIXTURE OF SUBSTANCES) AND THE NAME OF THE SUPPLYING COMPANY.

PRODUCT NAME	Michael Harding's Artists Oil Colours
IDENTIFICATION NO.	Series 1: 104/105/106/107/108 Series 2: 201 Series 5: 509/510 Series 7: 701
PRODUCT USE/CLASS	Oil Paint for Artists
UN-number	UN 2291 (Lead)/UN1564 (Barium)/UN2025 (Mercury)
MANUFACTURER	Michael Harding's Artists Oil Colours Units 2-5 88 - 92 Mile End Road London (Whitechapel) E1 4UN
TELEPHONE (Information)	+44 774 869 1437 or +44 207 702 8338
PREPARER	Michael Harding
EMERGENCY TELEPHONE UK	+44 870 243 2241 (Poison Centre)

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Contains one of the following products combined with drying oils and additives

Product	Ingredient	CAS No.	EINECS Nr.	Classification	PEL/TLV (mg/m)	NTP/ IARC
108	Barium Chromate	10294-40-3	233-660-5	R20/22, 45	0.50	N/N
104/105/106/107/201/509/510	Lead Carbonate	598-63-0		R61, 20/22, 33, 62, 50/53	0.05	N/N
701	Mercury Sulfide	1344-48-5	215-696-3	R21, 26, 28	0.05	N/N
Oil (See label)	Safflower Linseed	8001-23-8 8001-26-1	232-276-5 232-278-6	N/A	N/A	N/N

PEL = Permissible Exposure Limit  
 TLV = Threshold Limit Value  
 NTP = National Toxicology Program USA  
 IARC = International Agency for Research on Cancer  
 The full text for all R-phrases are displayed in section 15

3. HAZARDS POSSIBILITIES

Particular information pertaining specific risk for human/environment:

Hazard symbols:

T Toxic  
 N Dangerous for the environment

The products are highly hazardous to water.  
 Toxic if inhaled or swallowed.  
 Danger of cumulative effects.  
 May cause harm to the unborn child. Possible risk of impaired fertility.

Limited evidence of a carcinogenic effect for Lead.  
 Barium is a human carcinogen. The soluble barium salts are poisonous when ingested. Chromate salts are suspected human carcinogens producing tumors of the lungs, nasal cavity and paranasal sinus. Chromic acid and its salts have a corrosive action on the skin and mucous membranes. The lesions are confined to the exposed parts, affecting chiefly the skin of the hands and forearms and the mucous membranes of the nasal septum.  
 Mercury may be fatal if inhaled or swallowed. Chronic exposure may cause kidney injury, permanent central nervous system damage, fatigue, weight loss, tremors and personality changes.

No unusual fire or explosion hazards noted.

4. FIRST AID MEASURES

After skin contact:	Remove affected person from source of contamination. Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above.
After eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Inhalation:	Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention. Do not use mouth-to-mouth resuscitation. Loosen tight clothing/collar. Lay the victim on his/her left side. Keep the victim warm.
After ingestion:	Never make an unconscious person vomit or drink fluids. NO NOT induce vomiting. Get medical attention immediately. Show the packaging or label to physician.
Antidote for Mercury	The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

5. FIRE-FIGHTING MEASURES

Fire precautions: Keep cool  
 The substances are NON combustible, but they will burn.  
 Extinguish surrounding fire ASAP.

Suitable extinguishing media	ABC powder Carbon dioxide Sand, Dolomite Foam Water spray, fog or mist
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<b>Special Fire fighting procedures</b>	Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities. Isolate runoff to prevent environmental pollution.
<b>Unusual fire &amp; Explosion hazards</b>	No unusual fire or explosion hazards noticed
<b>Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases</b>	In the event of fire the following gases can be released: poisonous metal oxides Carbon dioxide (CO <sub>2</sub> ) (lead) Carbon monoxide (CO) (Lead) fumes of Barium and Chromium (Barium) Oxides of sulfur, mercury/mercury oxides.(Mercury) Fumes from fire are hazardous. Barium chromate is considered an oxidizing agent which may accelerate combustion.
<b>Special protective equipment for firefighting</b>	In case of combustion use a suitable equipment. Fire fighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.
<b>Other information</b>	Fire residues must be disposed of in a proper manner. Do not discharge into the subsoil/soil Do not allow to enter drains or waterways Contain contaminated water/firefighting water

**6. ACCIDENTAL RELEASE MEASURES**

<b>Environmental precautions</b>	Do not allow to enter drains or waterways Dispose in accordance with federal, state and local regulations.
<b>Methods for cleaning up/taking up</b>	Keep combustibles away from spilled material. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb in vermiculite, dry sand or earth and place into closed containers. Label adequately. Wash thoroughly after dealing with a spillage. Inform Authorities if large amounts are involved.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Protect against fire and explosion. The product is not easily combustible, however it can burn. Do not leave containers open Do not spray apply Avoid spilling. Avoid skin and eye contact. Wear full protective clothing for prolonged exposure and/or high concentrations. Pregnant or breastfeeding women must NOT handle these products.
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<b>In case of spilling</b>	Absorb on inert substrate Place in suitable container for disposal
<b>Storage</b>	Keep only in the original container Cool and dry in ventilated storage and closed containers Do not store together with foodstuffs Do not store together with animal feed stocks Recommended storage temperature: 15-25°C
<b>Waste disposal</b>	According to local regulations Rags and absorbent materials should be immersed in water

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ingredients with occupational exposure limits to be monitored: None

<b>Ingredient</b>	<b>STD</b>	<b>LT EXP 8hrs</b>
Mercury Sulfide	OSHA (Occupational Health & Safety Administration US)	0.05mg/m <sup>3</sup>
Basic Lead Carbonate	OSHA/ OES (Occupational Exposure Standard)	0.16 as Pb mg/m <sup>3</sup>
Barium Carbonate	OES	0.5 mg/m <sup>3</sup>

Personal protective equipment:

<b>General Protective and Hygiene measures</b>	Do not eat, drink or smoke during work time Avoid contact with skin Do not spray apply Wash hands/face immediately after use
<b>Respiratory protection</b>	Normally not needed
<b>Ventilation</b>	Yes.
<b>Protective gloves / barrier cream to protect the skin</b>	Yes. Use suitable protective gloves, made of rubber/plastic
<b>Eye protection</b>	Normally not needed Safety glasses if eye contact is likely
<b>Other protective clothing or equipment</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:

<b>Form</b>	Pasty or slurry
<b>Colour</b>	109/509/510 are yellow – 104/105/106/107/201 are white – 201 is brick red
<b>Odour</b>	Odourless

**Safety Data:**

Density	Barium Value: 4.5g/cm <sup>3</sup>	Lead Value: 3.5 g/cm <sup>3</sup>	Mercury Value: 8.1 ml 20°C
Reference Temp.	20 °C	20 °C	20°C
Soluble in/ miscible with	White spirits in all proportions	White spirits in all proportions + acids	White spirits in all proportions
Soluble in water	No	emulsion	No
Reactivity in water	Non reactive	emulsion	Non reactive
Flash Point	>230°C	>200°C	>230°C
Auto-ignition temperature	>300°C	>300°C	>300°C
Boiling Point	Not relevant	Not relevant	584.2
Melting Point	Decomposes	Not relevant	583.5
Vapor	Not relevant	Not relevant	Not relevant
Pressure/Density	7-8	8-9	~ 7 [at 10 g/l H2O]
pH value	N/A	10%	N/A

**10. STABILITY AND REACTIVITY**

Thermal decomposition:	Toxic gasses/vapours/fumes of Carbon dioxide(CO <sub>2</sub> ) and Carbon monoxide(CO) No decomposition upto 200°C
Hazardous polymerization products	None
Stability	Stable under normal storage conditions
Incompatibility	Combustible matter e.g. cotton waste
Conditions/materials to avoid	Heat/strong acids

**11. TOXICOLOGICAL INFORMATION**

INHALATION	Harmful by inhalation. Danger of serious damage to health by prolonged exposure through inhalation
INGESTION	Harmful if swallowed Danger of serious damage to health by prolonged exposure through ingestion
Skin	Possible risk of irreversible effects if swallowed. Product has a defatting effect on skin
Eyes	Irritating to eyes, when in contact
HEALTH HAZARDS	Swallowing concentrated chemical may cause severe internal injury
OTHER HEALTH EFFECTS	Toxic to Reproductive Health Categ. 1./Categ. 3 Toxic to Carcinogen Category 3
ROUTE OF ENTRY	Inhalation or ingestion
MEDICAL SYMPTOMS	Upper respiratory irritation, Nausea, vomiting, allergic rash
MEDICAL CONSIDERATIONS	Skin disorders and allergies

**Acute Toxicity:**

LD50 > 10,000mg/kg  
Species rat  
Reference substance Basic lead carbonate  
Source literature value

**12. ECOLOGICAL INFORMATION**

Barium : Dangerous for the environment. May cause long-term adverse effects in the aquatic environment. Mercury solvents are dangerous for the environment.

**13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with Local Authority requirements. Absorb in vermiculite or dry sand, dispose in licensed special waste.

**14. TRANSPORT INFORMATION**

Conclusion: No Hazardous goods for transport

Label for Conveyance:



INGREDIENT	Barium Chromate	LEAD CARBONATE	MERCURY SULFIDE
UN NO. Road/Sea/Air	1564	2291	2025
CLASS NO.	6.1	6.1	6.1
CLASS	Toxic substances	Toxic substances	Toxic substances
ADR ITEM NO.		62	
HAZCHEM CODE		22	
PROPER SHIPPING NAME	Barium compounds n.o.s.	Lead compounds, soluble	Mercury compounds n.o.s.
IMDG PAGE NO.	60/1564	61/70	
IMDG PACK NO.	III	III	III
EMS NO.		6.1 04	
MFAG TABLE NO.		110	
MARINE POLLUTANT	No	No	No
AIR PACK GR.	III	III	III

**15. REGULATORY INFORMATION**

Label for supply:



Risk Phrases and Safety Phrases:

R20/22	Harmful by inhalation and if swallowed (Lead)
R21	Harmful in contact with the skin (Mercury)
R26	Very toxic by inhalation (Mercury)
R28	Very toxic if swallowed (Mercury)
R33	Danger of cumulative effects (Lead)
R40	Limited evidence of a carcinogenic effect (Lead)
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (Lead)
R61	May cause harm to the unborn child (Lead, mercury)
R62	Possible risk of impaired fertility (Lead, Mercury)
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S36/37	Wear suitable protective clothing and gloves
S12	Keep locked up and out of reach of children
S53	Avoid exposure. Obtain special instructions before use
S56	Dispose of this material and its container to hazardous or special waste collection point
	Should not be used on surfaces that are liable to be chewed or sucked by children

Labelling in accordance to EC Directive „The Classification, Packaging and labelling of Dangerous Substances“: not required

**16. OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our present state of knowledge and on national and community regulations. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

The product must not be used for any purposes other than those specified under section 1, without first obtaining written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.

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