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.

i <u>es 1:</u> 104/105/106/107/108/131 ies 2: 201	
ies 2: 201	
<u>185 0. 005/000</u>	
<u>ies 7:</u> 701	
Paint for Artists	
chael Harding's Artists Oil Colours	
36 Springvale Industrial Estate	
Cwmbran NP44 5BD	
) 197 854 940 29 or +44 (0)1633484700	
chael Harding	
) 197 854 94029 Michael Harding	

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	NTP/
					(mg/mj)	IARC
108	Barium	10294-40-3	233-660-5	R20/22,45	0.50	N/N
	Chromate					
104/105/106/10	Lead	1319-46-6	215-290-6	R61, 20/22, 33,	0.05	N/N
7/201/509/510	Carbonate			62, 50/53		
701	Mercury	1344-48-5	215-696-3	R21, 26, 28,	0.05	N/N
	Sulfide					
Oil (See label)	Safflower	8001-23-8	232-276-5	N/A	N/A	N/N
	Linseed	8001-26-1	232-278-6			

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 confine 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

	Normal use			
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	The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be			
Mercury	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

Special Fire fighting procedures	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.	
Unusual fire & Explosion hazards	No unusual fire or explosion hazards noticed	
Special exposure hazards arising from the	In the event of fire the following gases can be	
substance or preparation itself, its	released: Poisonous metal oxides	
combustion products or from resulting gases	Carbon dioxide (CO2) (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.	
Special protective equipment for firefighting	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.	
Other information	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

Environmental precautions	Do not allow to enter drains or waterways	
	Dispose in accordance with federal, state and local	
	regulations.	
Methods for cleaning up/taking up	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

Handling	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.	

In case of spilling	Absorb on inert substrate	
	Place in suitable container for disposal	
Storage	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	
Waste disposal	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

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

Personal protective equipment:

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form	Pasty or slurry
Colour	108/509/510 are yellow – 104/105/106/107/201 are white – 701 is brick red
Odour	Odorless

	Barium	Lead	Mercury
Density	Value: 4.5g/cm ³	Value: 3.5 g/cm ³	Value: 8.1 ml
Reference Temp.		20 ⁰ C	20 ⁰ C
Soluble in/ miscible	White spirits in all	White spirits in all	White spirits in all
with	proportions	proportions + acids	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	>300°C	>300°C	>300°C
temperature			
Boiling Point	Not relevant	Not relevant	584.2
Melting Point	Decomposes	Not relevant	583.5
Vapor	Not relevant	Not relevant	Not relevant
Pressure/Density			
PH value	7-8	8-9	~ 7 (at 10 g/l H2O)
PH concentration	N/A	10%	N/A

10. STABILITY AND REACTIVITY

Thermal decomposition:	Toxic gasses/vapours/fumes of Carbon dioxide(CO2) 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
	Possible risk of irreversible effects if swallowed.
Skin	Product has a defeating effect on skin
Eyes	Irritating to eyes, when in contact
HEALTH WARNINGS	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> 1000mg/kgSpeciesratReference substanceBasic lead carbonateSourceliterature 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:



"The product does NOT constitute a hazardous/international road, rail, sea and air transport. (ADR/RID, AND/ADNR, IMDG/GGVSEE, ICAO/IATA).

No restrictive Department of Transportation requirements; not hazardous for shipping.

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
S1/2	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 EEC-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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