



MATERIAL SAFETY DATA SHEET

COLOUR PIGMENT

Effective Date : March 2012

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I. Identification

SUPPLIER: Norski Holdings Ltd, 10 Northpoint Street, Plimmerton, 5024 New Zealand

PRODUCT NAME: Colour Pigment.

PRODUCT CODE: Colour Pigment.

RECOMMENDED USE: Pigment dispersed in polyester resin and epoxy resin.

II. Hazard Classification

NEW ZEALAND: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS5433:2007 Transport of Dangerous Goods on Land.

HSNO CLASSIFICATION:

6.7B – Substance that is a suspected human carcinogen.

6.7A – Substance that is a known or presumed human carcinogen.

6.8A – Substance that is known or presumed to be a human reproductive or developmental toxicant.

6.9B – Substance that is harmful to human target organs or systems (repeated exposure).

9.1A – Substance that is very ecotoxic in the aquatic environment.

HAZARD STATEMENT CODE:

H341 – Suspected of causing genetic defects.

H360 – May damage fertility or the unborn child.

H350 – May cause cancer.

H373 – May cause damage to organs through prolonged or repeated exposure by ingestion.

H410 – Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT CODES – PREVENTION:

P103 – Read label before use. This statement applies only where the substance is available to the general public.

P104 – Read Safety Data Sheet before use.

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P260 – Do not breathe mist/vapours/spray.

P273 – Avoid release to the environment. This statement does not apply where this is the intended use.

P281 – Use personal protective equipment as required.

PRECAUTIONARY STATEMENT CODES – RESPONSE:

P308+P313+P314 – If exposed or concerned: Get medical advice/attention or if you feel unwell.

PRECAUTIONARY STATEMENT CODES – STORAGE:

P391 – Collect spillage.

P405 – Store locked up.

PRECAUTIONARY STATEMENT CODES – DISPOSAL:

P501 – In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

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RISK PHRASE(S):

R33 – Danger of cumulative effects.

R45 – May cause cancer.

R61 – May cause harm to the unborn child.

R62 – Possible risk of impaired fertility.

R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASE(S):

S23 – Do not breathe gas/fumes/vapour/spray.

S29 – Do not empty into drains.

S45 – In case of accident or if you feel unwell seek medical advice immediately.

S61 – Avoid release to the environment. Refer to special instructions/safety data sheets.

S24/25 – Avoid contact with skin and eyes.

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.

III. Composition/Information on Ingredients

INFORMATION ON COMPOSITION:

L2 indicates the presence of 10-30% by weight of lead calculated as the metal. The proportion of the sum of lead orange and lead yellow pigments will be between 18-54%.

Ingredients

Name	CAS	EINECS	Proportion
Polyester resin			40-100%
Lead Pigment Orange (L2)	12656-85-8	235-759-9	0-54%
Lead Pigment Yellow (L2)	1344-37-2	215-693-7	0-54%
Pigment various depending on colour			0-40%
Additives			0-2%

IV. First Aid Measures

INHALATION: If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

INGESTION: Do not induce vomiting. Wash out mouth with water and give plenty of water to drink. Seek immediate medical attention.

SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.

EYES: If contact with the eye(s) occurs, wash immediately with water. Continue flushing for several minutes until all contaminants are washed off completely. Seek medical attention.

FIRST AID FACILITIES: Eye wash station and normal washroom facilities.

EMERGENCY: 0800 POISON (764 766)

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V. Fire-fighting Measures

SUITABLE EXTINGUISHING MEDIA: Water fog, fine water spray, foam, dry chemical powder or carbon dioxide.

HAZARDS FROM COMBUSTION PRODUCTS: Toxic and/or irritating fumes including oxides of lead, sulphur and chromium.

SPECIFIC HAZARDS: Combustible substance. Under fire conditions this product may decompose and emit toxic and/or irritating fumes.

HAZCHEM: .3Z.

PRECAUTIONS IN CONNECTION WITH FIRE: Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode. Water spray may be used to keep fire exposed containers cool.

VI. Accidental Release Measures

EMERGENCY PROCEDURES: Slippery when spilt. Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contaminated of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

VII. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: Open containers cautiously as contents may be under pressure. Use only in a well ventilated area. Do not store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with large quantities, repeated or prolonged exposure without protection should be prevented in order to lessen the possibility of disorders. It is essential that all who come into contact with this material, maintain high standards of personal hygiene ie washing hands prior to eating, drinking, smoking or using toilet facilities. It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

CONDITIONS FOR SAFE STORAGE: Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Always keep in containers made of the same material as the supply container. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to the Australian Standard AS1940 – The Storage and Handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

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VIII. Exposure Controls/Personal Protection

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	TWA	STEL	Notices
ppm	mg/m ³	ppm	mg/m ³
Lead, inorganic			
Dust and fumes (as Pb)	0.10	- - -	
Lead chromate (as Cr)	0.05	- - -	

As published by the National Occupational Health and Safety Commission (NOHSC), Australia and the New Zealand Occupational Safety and Health Service (OSH).

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL: (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

BIOLOGICAL LIMIT VALUES:

Biological limit allocated.

Sampling time BEI

Chromium (VI)

Total chromium in urine Increase during shift 10 ug/g creatine.

Total chromium in urine End of shift at end of work week 30 ug/g creatine.

Lead: In blood not critical 30 ug/100ml.

ENGINEERING CONTROLS: Provide sufficient ventilation. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 – The storage and handling of flammable and combustible liquids and AS2430 – Explosive gas atmospheres for further information concerning ventilation requirements.

RESPIRATORY PROTECTION: If engineering controls are not effective in controlling airborne exposure, then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the types of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian/New Zealand Standards AS/NZS1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

EYE PROTECTION: Safety glasses with side shields or face shield should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances ie methods of handling or engineering controls and according to risk assessments undertaken. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS1337 – Eye Protectors for Industrial Applications.

HAND PROTECTION: Impervious gloves recommended. Final choice of appropriate gloves will vary according to individual circumstances ie methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS2161: Occupational protective gloves – selection, use and maintenance.

BODY PROTECTION: Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

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IX. Physical and Chemical Properties

APPEARANCE: Viscous varied colour paste.

ODOUR: Characteristic odour.

MELTING POINT: Not available.

BOILING POINT: Not available.

SOLUBILITY IN WATER: 0 g/L.

pH VALUE: Not available.

VAPOUR PRESSURE: Not available.

VAPOUR DENSITY: Not available.

DENSITY: 1.5 – 2.5 kg/L.

FLASH POINT: >93°C

FLAMMABILITY: Combustible substance.

AUTO-IGNITION TEMPERATURE: Not available.

FLAMMABLE LIMITS – LOWER: Not available.

FLAMMABLE LIMITS – UPPER: Not available.

X. Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions of storage and handling.

CONDITIONS TO AVOID: Extremes of temperature and direct sunlight.

INCOMPATIBLE MATERIALS: Strong oxidising agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.

HAZARDOUS REACTIONS: Hazardous reaction with strong oxidising agents.

XI. Toxicological Information

TOXICOLOGY INFORMATION: No toxicity data is available for this product. For Lead Chromate pigment: LD50 (Oral, Rat): >5000 mg/kg
Lead chromate pigments are low solubility lead compounds. However in hydrochloric acid at stomach acid concentrations, lead is dissolved out and may accumulate in the body.

For Lead: The effects of lead poisoning may not be apparent immediately but significant absorption by inhalation or swallowing over a period of time may product adverse effects due to the accumulation of lead in the body. Studies of humans and animals indicate that lead may exert gametotoxic, embryotoxic, and teratogenic effects that could influence the survival and development of the foetus and newborn. It appears that prenatal viability and development may also be indirectly affected by lead through its effects on the health of the expectant mother. The unborn therefore constitutes a group at risk for the effects of lead on health. Also, certain information regarding male reproductive functions has led to concern regarding the impact of lead on men.

For Chromates: IARC has concluded that there is sufficient evidence in experimental animals for the carcinogenicity of calcium chromate, zinc chromates, strontium chromate and lead chromates. Also there is sufficient evidence in humans for the carcinogenicity of chromium (VI) compounds as encountered in the chromate production, chromate pigment production and chromium plating industries.

INHALATION: May cause irritation to respiratory system. Symptoms may include headache, nausea and dizziness.

INGESTION: Ingestion may cause irritation of the gastrointestinal system. Symptoms may include anorexia, nausea, vomiting, weakness, diarrhoea, convulsions and possibly death.

SKIN: May be irritating to skin. Symptoms may include redness and itchiness. Repeated or prolonged skin contact may lead to dermatitis.

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EYE: May be irritating to eyes. Symptoms may include redness, excessive tearing, stinging and swelling.

CHRONIC EFFECTS: Danger of cumulative effects. Possible risk of irreversible effects. May cause harm to the unborn child. Possible risk of impaired fertility.

For lead chromate pigments: Absorption of lead over a period of time can produce adverse effects on the blood and central nervous system. Carcinogenic effects have been associated with lead and chromium compounds.

Lead and lead compounds are cumulative poisons; blood levels can increase with repeated exposure, causing blood, kidney liver, reproductive, development and nervous system effects. Symptoms may include discomfort or pain, nausea, diarrhoea, loss of appetite, dizziness, lassitude, incoordination and insomnia.

REPRODUCTIVE TOXICITY: May cause harm to the unborn child. This product is classified by NOHSC as Toxic to reproduction Category 1 (substances that cause developmental toxicity). Possible risk of impaired fertility. This product is classified by NOHSC as Toxic to reproduction Category 3: substances that cause concern for human fertility.

CARCINOGENICITY: This substance is classified as a Category 2 Carcinogen according to National Occupational Health and Safety Commission (NOHSC). That is, there is sufficient evidence, on the basis of appropriate long term animal studies or other relevant information, to provide a strong presumption that human exposure to this substance may result in the development of cancer. Category 2 Carcinogens are substances that should be regarded as if they are carcinogenic to humans.

XII. Ecological Information

ECOTOXICITY: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

PERSISTENCE/DEGRADABILITY: No data available for this specific material.

MOBILITY: No data available for this specific material.

ENVIRONMENT PROTECTION: Do not allow product to enter drains, waterways or sewers.

XIII. Disposal Considerations

DISPOSAL CONSIDERATIONS: Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

XIV. Transport Information

This material is classified as a Class 9 – Miscellaneous Substance according to NZS 5433:2007 Transport of Dangerous Goods on Land.

It must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosives. Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with (Note 3); Segregation devices may be used as to segregate dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of;
- Class 3, Flammable liquids
- Class 4.1, Flammable solids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances

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- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides
- Class 6.1, Toxic substances
- Class 6.2, Infectious substances
- Class 8, Corrosive substances

And are incompatible with food and food packaging in any quantity.

UN NUMBER: 3082

PROPER SHIPPING NAME: Environmentally Hazardous Substance, Liquid, N.O.S. – (Contains lead pigments)

DG CLASS: 9

HAZCHEM CODE: .3Z

PACKING GROUP: III

IERG NUMBER: 47

IMDG MARINE POLLUTANT (MP): This material is a Marine Pollutant according to the International Maritime Dangerous Goods (IMDG) Code.

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