

Lead(II) chromate

sc-250240

Material Safety Data Sheet



The Power is Question

Hazard Alert Code Key:

EXTREME

HIGH

MODERATE

LOW

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

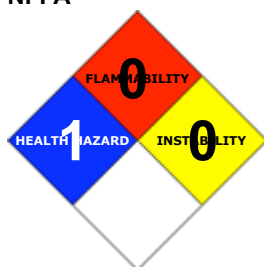
PRODUCT NAME

Lead(II) chromate

STATEMENT OF HAZARDOUS NATURE

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

NFPA



SUPPLIER

Santa Cruz Biotechnology, Inc.
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800.457.3801 or 831.457.3800

EMERGENCY:

ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SYNONYMS

PbCrO₄, "chromic acid lead salt", "lead chromate (VI)", "Canary Chrome", "Lemon Yellow", "Primrose Chrome Green", "C.I. 77600", "C.I. Pigment Yellow 34"

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability:	0	
Toxicity:	2	
Body Contact:	2	
Reactivity:	0	
Chronic:	4	

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4



CANADIAN WHMIS SYMBOLS



EMERGENCY OVERVIEW

RISK

Danger of cumulative effects.
Limited evidence of a carcinogenic effect.
May cause harm to the unborn child.
Possible risk of impaired fertility.
Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
Harmful by inhalation and if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

EYE

■ Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.

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SKIN

■ The material is not thought to be a skin irritant (as classified using animal models). Abrasive damage however, may result from prolonged exposures.

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■ Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

■ Open cuts, abraded or irritated skin should not be exposed to this material.

■ Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

■ Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.

■ The material is not thought to produce respiratory irritation (as classified using animal models). Nevertheless inhalation of dusts, or fume, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

■ Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

■ There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

■ Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

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Ample evidence exists that developmental disorders are directly caused by human exposure to the material.

Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung.

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Lead, in large amounts, can affect the blood, nervous system, heart, glands, immune system and digestive system. Anemia may occur.

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Lead can cross the placenta, and cause miscarriage, stillbirths and birth defects. Exposure before birth can cause mental retardation, behavioral disorders and infant death.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
lead chromate	7758-97-6	> 98

Section 4 - FIRST AID MEASURES

SWALLOWED

· IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. · Where Medical attention is not

immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:

EYE

■ If this product comes in contact with the eyes: · Wash out immediately with fresh running water. · Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN

■ If skin contact occurs: · Immediately remove all contaminated clothing, including footwear · Flush skin and hair with running water (and soap if available).

INHALED

· If fumes or combustion products are inhaled remove from contaminated area. · Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

· Gastric acids solubilize lead and its salts and lead absorption occurs in the small bowel.
· Particles of less than 1µm diameter are substantially absorbed by the alveoli following inhalation.

Section 5 - FIRE FIGHTING MEASURES

Vapour Pressure (mmHG):	Not applicable
Upper Explosive Limit (%):	Not applicable
Specific Gravity (water=1):	6.3
Lower Explosive Limit (%):	Not applicable

EXTINGUISHING MEDIA

· Water spray or fog.
· Foam.

FIRE FIGHTING

· Alert Emergency Responders and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves for fire only.
When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 100 metres in all directions.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

· Non combustible.
· Not considered to be a significant fire risk, however containers may burn.
Decomposition may produce toxic fumes of: metal oxides.

FIRE INCOMPATIBILITY

■ None known.

PERSONAL PROTECTION

Glasses:
Chemical goggles.
Gloves:
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

· Clean up waste regularly and abnormal spills immediately.
· Avoid breathing dust and contact with skin and eyes.
· Wear protective clothing, gloves, safety glasses and dust respirator.
· Use dry clean up procedures and avoid generating dust.
· Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).
· Dampen with water to prevent dusting before sweeping.
· Place in suitable containers for disposal.

Environmental hazard - contain spillage.

MAJOR SPILLS

· Clear area of personnel and move upwind.
· Alert Emergency Responders and tell them location and nature of hazard.
Environmental hazard - contain spillage.
· DO NOT touch the spill material.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

· Avoid all personal contact, including inhalation.
· Wear protective clothing when risk of exposure occurs.

RECOMMENDED STORAGE METHODS

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE REQUIREMENTS

- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³	STEL mg/m ³	Peak mg/m ³	Notes
Canada - Alberta Occupational Exposure Limits	lead chromate (Lead chromate, as Pb)	0.05			
Canada - British Columbia Occupational Exposure Limits	lead chromate (Lead chromate, as Cr)	0.012			A2; 2A; R
Canada - Alberta Occupational Exposure Limits	lead chromate (Lead chromate, as Cr)	0.012			
US ACGIH Threshold Limit Values (TLV)	lead chromate (Lead chromate (as Cr))	0.012			TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
US ACGIH Threshold Limit Values (TLV)	lead chromate (Lead chromate (as Pb))	0.05			TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
Canada - British Columbia Occupational Exposure Limits	lead chromate (Lead chromate, as Pb)	0.05			A2; 2A; R
US - California Permissible Exposure Limits for Chemical Contaminants	lead chromate (Lead chromate, as Pb)	0.02			
US - California Permissible Exposure Limits for Chemical Contaminants	lead chromate (Lead chromate, as Cr (see also Section 5198, 1532.1, 1532.2, 5206 & 8359))	0.005			
Canada - Ontario Occupational Exposure Limits	lead chromate (Lead chromate, as Cr)	0.012			
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	lead chromate (Lead chromate (as Cr))	0.012			
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	lead chromate (Lead chromate, (as Pb))	0.05	0.15		T20
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	lead chromate (Lead chromate, (as Cr))	0.012	0.036		T20
US - Washington Permissible exposure limits of air contaminants	lead chromate (Lead chromate (as Pb) (see WAC 296-62-08003, 296-62-07521, and 296-155-176))	0.05			
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	lead chromate (K Lead chromate (as Cr))	(See Table 14)			

Canada - Yukon Carcinogens with a Permitted Exposure	lead chromate (Lead chromate (as Cr))	0.05		
US - Hawaii Air Contaminant Limits	lead chromate (Lead chromate, as Cr)	0.05		
Canada - Prince Edward Island Occupational Exposure Limits	lead chromate (Lead chromate (as Cr))	0.012		TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
Canada - Prince Edward Island Occupational Exposure Limits	lead chromate (Lead chromate (as Pb))	0.05		TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
Canada - Nova Scotia Occupational Exposure Limits	lead chromate (Lead chromate (as Pb))	0.05		TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
Canada - Northwest Territories Occupational Exposure Limits (English)	lead chromate (Lead chromate (as Cr))	0.05	0.15	
Canada - Nova Scotia Occupational Exposure Limits	lead chromate (Lead chromate (as Cr))	0.012		TLV Basis: male reproductive damage; teratogenic effects; vasoconstriction
US - Idaho - Acceptable Maximum Peak Concentrations	lead chromate (Lead and its inorganic compounds (Z37.11-1969))	0.2		
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	lead chromate (Lead inorganic (as Pb); see 1910.1025.)	For independent pigments, lead		
US OSHA Permissible Exposure Levels (PELs) - Table Z1	lead chromate (Lead, inorganic (as Pb); see 1910.1025)	0.05		If an employee is exposed to lead for more than 8 hours in any work day, the permissible exposure limit, as a time weighted average (TWA) for that day, shall be reduced according to the following formula:
US - Michigan Exposure Limits for Air Contaminants	lead chromate (Lead inorganic (as Pb); see R 325.51901 et seq.F)	0.05		
US - Oregon Permissible Exposure Limits (Z-1)	lead chromate (Lead, inorganic (as Pb))	0.05		TWA (See 1910.1025 & 1926.62)
US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)	lead chromate (CHROMIUM(VI), AEROSOL MISTS)	5e-006		
US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)	lead chromate (CHROMIUM(VI), PARTICULATES)	0.0003		
US OSHA Permissible Exposure Levels (PELs) - Table Z1	lead chromate (Chromium (VI) compounds; See 1910.1026(5))	0.005		
US - Oregon Permissible Exposure Limits (Z-1)	lead chromate (Chromium (VI) compounds)	0.005		TWA (See 1910.1026)
US - Michigan Exposure Limits for Air Contaminants	lead chromate (Chromic acid and chromates (as CrO3))		0.1	
US - Alaska Limits for Air Contaminants	lead chromate (Chromic acid and chromates (as CrO3))		0.1	

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	lead chromate (Chromium, metal and insoluble Salts)	1
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	lead chromate (Chromium metal and insol. salts (as Cr))	1
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	lead chromate (Chromium metal and insol. salts (as Cr))	1
US - Idaho - Limits for Air Contaminants	lead chromate (Chromium metal and insol. salts (as Cr))	1
US - Oregon Permissible Exposure Limits (Z-1)	lead chromate (Chromium metal & insol. salts (as Cr))	1
US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants	lead chromate (Chromium metal and insol. salts (as Cr))	1
US OSHA Permissible Exposure Levels (PELs) - Table Z1	lead chromate (Chromium metal and insol. salts (as Cr))	1

ENDOELTABLE

PERSONAL PROTECTION



RESPIRATOR

Particulate

Consult your EHS staff for recommendations

EYE

- Safety glasses with side shields
- Chemical goggles.

HANDS/FEET

- Wear chemical protective gloves, eg. PVC.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

OTHER

- Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area.
- Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted.
- Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.
- Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear

clean, impervious garments, including gloves, boots and continuous-air supplied hood.

- Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

ENGINEERING CONTROLS

- Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.
- Work should be undertaken in an isolated system such as a "glove-box". Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.
- Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.
- Open-vessel systems are prohibited.
- Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.
- Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.
- For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).
- Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.
- Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 150 feet/ min. with a minimum of 125 feet/ min. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Solid.

Does not mix with water.

Sinks in water.

State	Divided solid	Molecular Weight	323.19
Melting Range (°F)	1551.2	Viscosity	Not Applicable
Boiling Range (°F)	Not available.	Solubility in water (g/L)	Immiscible
Flash Point (°F)	Not Applicable	pH (1% solution)	Not applicable
Decomposition Temp (°F)	Not available.	pH (as supplied)	Not applicable
Autoignition Temp (°F)	Not applicable	Vapour Pressure (mmHG)	Not applicable
Upper Explosive Limit (%)	Not applicable	Specific Gravity (water=1)	6.3
Lower Explosive Limit (%)	Not applicable	Relative Vapor Density (air=1)	Not applicable.
Volatile Component (%vol)	Not applicable.	Evaporation Rate	Not applicable

APPEARANCE

Yellow or orange yellow powder, insoluble in water. No odour. Soluble in fixed alkali hydroxides and dilute solutions of nitric acid.

Section 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

STORAGE INCOMPATIBILITY

■ for lead chromate:

- Incompatible with aluminium dinitronaphthalene; considerable energy is released by the mixture and derives from chromate-catalysed exothermic decomposition of the nitro-compound, coupled with a thermit-type reaction of the aluminium and chromate. This reaction has been used for cracking concrete
- Avoid reaction with powdered iron, strong reducing agents, strong alkalis.
- Dry grinding a mixture of lead chromate and ferric ferrocyanide in a ball mill to form chrome green, produced a fierce fire in the pigment. (Chemical Process Chicago August 1967) Reference: Fire Protection Guide on Hazardous Materials. 7th Ed.
- Under certain conditions, dry mixes of lead chromate pigments with azo dyes, 1-(2',4'-dinitrobenzeneazo)-2-hydroxynaphthalene, (dinitroaniline orange) or (1-(4'-chloro-2'-nitrobenzeneazo)-2-hydroxynaphthalene (chlorinated p-red) leads to violent explosion during mixing/blending.
- Intimate mixtures with iron(3+) hexacyanoferrate(4-) may be ignited by a spark during grinding. Spontaneous ignition with Brunswick Green (which also contains lead sulfate) are not uncommon soon after grinding; similar incidents have lead to a loss of ships with cargoes of

Prussian Blue and Brunswick Green in wooden casks.

- Mixtures with sulfur are pyrophoric
- Mixtures with tantalum are used in pyrotechnic compositions.
- Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride.
- These trifluorides are hypergolic oxidisers. They ignite on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition.
- The state of subdivision may affect the results.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

LEAD CHROMATE

TOXICITY AND IRRITATION

LEAD CHROMATE:

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY	IRRITATION
Oral (mouse) LD50: 12000 mg/kg	Nil Reported

- WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

Lead can cross the placenta, and cause miscarriage, stillbirths and birth defects. Exposure before birth can cause mental retardation, behavioral disorders and infant death.

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CARCINOGEN

LEAD CHROMATE	US Environmental Defense Scorecard Recognized Carcinogens	Reference(s)	P65-MC
LEAD COMPOUNDS	US Environmental Defense Scorecard Recognized Carcinogens	Reference(s)	P65
LEAD CHROMATE	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	P65-MC
LEAD COMPOUNDS	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	P65
CHROMIUM COMPOUNDS	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	HAZMAP, P65-MC
Lead and lead compounds (inhalation)	US Air Toxics Hot Spots TSD for Describing Available Cancer Potency Factors	IARC Class	2B
Lead and lead compounds (oral)	US Air Toxics Hot Spots TSD for Describing Available Cancer Potency Factors	IARC Class	

Section 12 - ECOLOGICAL INFORMATION

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

This material and its container must be disposed of as hazardous waste.

Avoid release to the environment.

Refer to special instructions/ safety data sheets.

Section 13 - DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions

A. General Product Information

Toxicity characteristic: use EPA hazardous waste number D008 (waste code E) if this substance, in a solid waste, produces an extract containing greater than 5 mg/L of lead.

Disposal Instructions

All waste must be handled in accordance with local, state and federal regulations.

! Puncture containers to prevent re-use and bury at an authorized landfill.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult Waste Management Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION



DOT:

Symbols: G Hazard class or Division: 9

Identification Numbers: UN3077 PG: III

Label Codes: 9 Special provisions: 8, 146,

335, B54,

IB8, IP3,

N20, T1,

TP33

Packaging: Exceptions: 155 Packaging: Non- bulk: 213

Packaging: Exceptions: 155 Quantity limitations: No limit

Passenger aircraft/rail:

Quantity Limitations: Cargo No limit Vessel stowage: Location: A aircraft only:

Vessel stowage: Other: None

Hazardous materials descriptions and proper shipping names:

Environmentally hazardous substance, solid, n.o.s

Air Transport IATA:

ICAO/IATA Class: 9 ICAO/IATA Subrisk: None

UN/ID Number: 3077 Packing Group: III

Special provisions: A97

Cargo Only

Packing Instructions: 911 Maximum Qty/Pack: 400 kg

Passenger and Cargo Passenger and Cargo

Packing Instructions: 911 Maximum Qty/Pack: 400 kg

Passenger and Cargo Limited Quantity Passenger and Cargo Limited Quantity

Packing Instructions: Y911 Maximum Qty/Pack: 30 kg G

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. *(CONTAINS LEAD CHROMATE)

Maritime Transport IMDG:

IMDG Class: 9 IMDG Subrisk: None

UN Number: 3077 Packing Group: III

EMS Number: F-A , S-F Special provisions: 179 274 335 909

Limited Quantities: 5 kg Marine Pollutant: Yes

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(contains lead chromate)

Section 15 - REGULATORY INFORMATION

lead chromate (CAS: 7758-97-6) is found on the following regulatory lists;

"Canada - Alberta Occupational Exposure Limits", "Canada - British Columbia Occupational Exposure Limits", "Canada - Northwest Territories Occupational Exposure Limits (English)", "Canada - Nova Scotia Occupational Exposure Limits", "Canada - Ontario Occupational Exposure Limits", "Canada - Prince Edward Island Occupational Exposure Limits", "Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens", "Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)", "Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits", "Canada - Yukon Carcinogens with a Permitted Exposure", "Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances", "Canada Domestic Substances List (DSL)", "Canada Ingredient Disclosure List (SOR/88-64)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)", "International Chemical Secretariat (ChemSec) REACH SIN* List (*Substitute It Now!) 1.0", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US - California Air Toxics ""Hot Spots"" List (Assembly Bill 2588) Substances for which emissions must be quantified", "US - California Occupational Safety and Health Regulations (CAL/OSHA) - Hazardous Substances List", "US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)", "US - California Permissible Exposure Limits for Chemical Contaminants", "US - Hawaii Air Contaminant Limits", "US - Maine Chemicals of High Concern List", "US - Minnesota Hazardous Substance List", "US - New Jersey Right to Know Hazardous Substances", "US - Pennsylvania - Hazardous Substance List", "US - Rhode Island Hazardous Substance List", "US - Washington Permissible exposure limits of air contaminants", "US ACGIH Threshold Limit Values (TLV)", "US ACGIH Threshold Limit Values (TLV) - Carcinogens", "US DOE Temporary Emergency Exposure Limits (TEELs)", "US EPA National Priorities List - Superfund Chemical Data Matrix (SCDM) - Hazard Ranking System - Hazardous Substance Benchmarks", "US Toxic Substances Control Act (TSCA) - Inventory", "US

Section 16 - OTHER INFORMATION

LIMITED EVIDENCE

- Skin contact may produce health damage*.

* (limited evidence).

Reasonable care has been taken in the preparation of this information, but the author makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The author makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. For additional technical information please call our toxicology department on +800 CHEMCALL.

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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