

# Chemical Safety Data Sheet MSDS / SDS

## Lead chromate

Revision Date:2026-01-17 Revision Number:1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## Product identifier

Product name	: Lead chromate
CBnumber	: CB0347028
CAS	: 7758-97-6
EINECS Number	: 231-846-0
Synonyms	: Lead chromate,chrome yellow

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

## SECTION 2: Hazards identification

### Classification of the substance or mixture

#### Carcinogenicity. Category 1B

#### Specific target organ toxicity – repeated exposure, Category 2

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

#### Reproductive toxicity, Category 1A

## Label elements

### Pictogram(s)

Signal word Danger

### Hazard statement(s)

H350 May cause cancer

H360 May damage fertility or the unborn child

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

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

#### **Precautionary statement(s)**

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

#### **Prevention**

P203 Obtain, read and follow all safety instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

#### **Response**

P318 IF exposed or concerned, get medical advice.

P319 Get medical help if you feel unwell.

P391 Collect spillage.

#### **Storage**

P405 Store locked up.

#### **Disposal**

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

#### **Other hazards**

no data available

### **SECTION 3: Composition/information on ingredients**

#### **Substance**

Product name	: Lead chromate
Synonyms	: Lead chromate,chrome yellow
CAS	: 7758-97-6
EC number	: 231-846-0
MF	: CrO <sub>4</sub> Pb
MW	: 323.19

### **SECTION 4: First aid measures**

#### **Description of first aid measures**

##### **If inhaled**

Fresh air, rest.

##### **Following skin contact**

Rinse and then wash skin with water and soap.

#### **Following eye contact**

Rinse with plenty of water (remove contact lenses if easily possible).

#### **Following ingestion**

Rinse mouth. Give one or two glasses of water to drink.

### **Most important symptoms and effects, both acute and delayed**

ACUTE/CHRONIC HAZARDS: This compound is toxic by ingestion and inhalation. (NTP, 1992)

#### **Indication of any immediate medical attention and special treatment needed**

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Poisons A and B

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## **SECTION 5: Firefighting measures**

#### **Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Specific Hazards Arising from the Chemical**

Flammability and Flash point data are unavailable; this compound is probably non-flammable. (NTP, 1992)

#### **Advice for firefighters**

In case of fire in the surroundings, use appropriate extinguishing media.

#### **NFPA 704**

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OX

<input checked="" type="checkbox"/> HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. <a href="#">diethyl ether</a> , ammonium phosphate, iodine)
<input checked="" type="checkbox"/> FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, <a href="#">acetone</a> )
<input checked="" type="checkbox"/> REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, <a href="#">N2</a> )
<input type="checkbox"/> SPEC.		
<input type="checkbox"/> HAZ.	OX	

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## SECTION 6: Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum spilled material with specialist equipment. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

### **Environmental precautions**

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum spilled material with specialist equipment. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

### **Methods and materials for containment and cleaning up**

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust; Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided; Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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## SECTION 7: Handling and storage

### **Precautions for safe handling**

NO contact with incompatible materials: See Chemical Dangers Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **Conditions for safe storage, including any incompatibilities**

Separated from food and feedstuffs and incompatible materials. See Chemical Dangers. Store in an area without drain or sewer access. Provision to contain effluent from fire extinguishing. Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

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## SECTION 8: Exposure controls/personal protection

### **Control parameters**

#### **Occupational Exposure limit values**

TLV: (as Cr(VI), inhalable fraction): 0.0002 mg/m<sup>3</sup>, as TWA; 0.0005 mg/m<sup>3</sup> as STEL; (skin); (DSEN); (RSEN); BEI issued; A1 (confirmed human carcinogen). TLV: (as Pb): 0.05 mg/m<sup>3</sup>, as TWA. EU-OEL: (as Cr): 0.01 mg/m<sup>3</sup> as TWA. EU-OEL: (as Pb): 0.15 mg/m<sup>3</sup> as TWA; (binding); BLV issued. MAK: carcinogen category: 1; germ cell mutagen group: 2; skin absorption (H); sensitization of skin (SH)

#### **Biological limit values**

no data available

## Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

## Individual protection measures

### Eye/face protection

Wear safety goggles or eye protection in combination with breathing protection if powder.

### Skin protection

Protective gloves. Protective clothing.

### Respiratory protection

Use local exhaust or breathing protection.

### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Physical state	sintered
Colour	Yellow
Odour	Odorless
Melting point/freezing point	844°C
Boiling point or initial boiling point and boiling range	Decomposes (NTP, 1992)
Flammability	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	Bivalent chromium compounds are basic
Kinematic viscosity	no data available
Solubility	less than 1 mg/mL at 66° F (NTP, 1992)
Partition coefficient n-octanol/water	no data available
Vapour pressure	Approximately 0 mm Hg
Density and/or relative density	6.3 g/cm <sup>3</sup>
Relative vapour density	no data available
Particle characteristics	no data available

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## SECTION 10: Stability and reactivity

### Reactivity

100 mg/cu m Lead (as Pb)

250 mg/cu m (as Cr(II)). Chromium(II) compounds (as Cr)

25 mg/cu m (as Cr(III)). Chromium(III) compounds (as Cr)

15 mg/cu m (as Cr(VI)). Chromic acid and chromates

NIOSH considers chromic acid and chromates to be potential occupational carcinogens. Chromic acid and chromates

Decomposes on heating. This produces toxic fumes including lead oxides. Reacts violently with many substances such as combustible substances, amines, bases and metals. This generates fire and explosion hazard.

## **Chemical stability**

Stable under recommended storage conditions.

## **Possibility of hazardous reactions**

LEAD CHROMATE reacts violently with ferric ferrocyanide (NTP, 1992). The mixture of sulfur and the chromate is pyrophoric, as is the case of tantalum and the chromate. Under certain conditions, combinations of dry mixtures of lead chromate pigment and azo-dyes (nitrobenzeneazo derivatives) may lead to explosions. When these materials are intimately mixed, violent reactions may result [Loss Prev. Bull., 1978, (022), 117].

## **Conditions to avoid**

no data available

## **Incompatible materials**

Incompatible materials: Organic materials, powdered metals

## **Hazardous decomposition products**

When heated to decomposition it emits toxic fumes of inorganic lead

# **SECTION 11: Toxicological information**

## **Acute toxicity**

- Oral: LD50 Mouse oral >12 g/kg
- Inhalation: no data available
- Dermal: no data available

## **Skin corrosion/irritation**

no data available

## **Serious eye damage/irritation**

no data available

## **Respiratory or skin sensitization**

no data available

## **Germ cell mutagenicity**

no data available

## **Carcinogenicity**

A2; Suspected human carcinogen. Lead chromate, as Cr

## **Reproductive toxicity**

no data available

## **STOT-single exposure**

The substance is irritating to the respiratory tract.

## **STOT-repeated exposure**

The substance may have effects on the blood, bone marrow, central nervous system, peripheral nervous system, kidneys and lungs. This may result in anaemia, peripheral nerve disease, abdominal cramps and kidney impairment. This substance is carcinogenic to humans. May cause toxicity to human reproduction or development.

## **Aspiration hazard**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying or when dispersed, especially if powdered.

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## **SECTION 12: Ecological information**

### **Toxicity**

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### **Persistence and degradability**

no data available

### **Bioaccumulative potential**

no data available

### **Mobility in soil**

no data available

### **Other adverse effects**

no data available

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## **SECTION 13: Disposal considerations**

### **Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do

not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## **SECTION 14: Transport information**

#### **UN Number**

ADR/RID: UN3077 (For reference only, please check.)

IMDG: UN3077 (For reference only, please check.)

IATA: UN3077 (For reference only, please check.)

#### **UN Proper Shipping Name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

#### **Transport hazard class(es)**

ADR/RID: 9 (For reference only, please check.)

IMDG: 9 (For reference only, please check.)

IATA: 9 (For reference only, please check.)

#### **Packing group, if applicable**

ADR/RID: III (For reference only, please check.)

IMDG: III (For reference only, please check.)

IATA: III (For reference only, please check.)

#### **Environmental hazards**

ADR/RID: Yes

IMDG: Yes

IATA: Yes

#### **Special precautions for user**

no data available

#### **Transport in bulk according to IMO instruments**

no data available

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## **SECTION 15: Regulatory information**

#### **Safety, health and environmental regulations specific for the product in question**

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

Chemical Book

Listed.

#### **EC Inventory**

Listed.

#### **United States Toxic Substances Control Act (TSCA) Inventory**

Listed.

#### **China Catalog of Hazardous chemicals 2015**

Listed.

#### **New Zealand Inventory of Chemicals (NZIoC)**

Listed.

#### **PICCS**

Listed.

#### **Vietnam National Chemical Inventory**

Listed.

#### **IECSC**

Listed.

#### **Korea Existing Chemicals List (KECL)**

Listed.

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## **SECTION 16: Other information**

### **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### **References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

## **Other Information**

Chromates are classified as human carcinogens, but evidence for this substance is limited. Lead chromate pigments may contain appreciable quantities of water-soluble lead compounds. Toxic fumes (lead and chromium compounds) are also liberated during welding, cutting and heating of material treated with lead chromate. Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home. Lead chromate occurs in nature as the minerals crocoite, phoenicochroite. NEVER use a domestic-type vacuum cleaner to vacuum the substance, only use specialist equipment.

### **Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.