

MATERIAL SAFETY DATA SHEET

1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER	PIGMENT SANAYI A.S.
ADDRESS and PHONE NUMBERS	Kemalpasa Asfalti No:44 Kemalpasa Izmir/TURKEY
IN CASE OF EMERGENCY	Tel:+902328770400 Fax:+902328770401
PRODUCT NAME	Chrome Yellow Pigment
TRADE NAMES/SYNONYMS	CHROMIC ACID, LEAD(2+) SALT; LEAD CHROMATE(VI); CHROME YELLOW; KING'S YELLOW; LEIPZIG YELLOW; PARIS YELLOW; PLUMBOUS CHROMATE; NATURAL CROCOITE; COLOGNE YELLOW; LEAD(VI) CHROMATE; CHROMIC ACID (H ₂ CrO ₄), LEAD(2+) SALT (1:1); LEAD CHROMATE (VI) (PbCrO ₄); LEAD CHROMATE (PbCrO ₄); LEAD CHROMIUM OXIDE (PbCrO ₄); CrO ₄ Pb; OHS12580; RTECS GB2975000
PRODUCT CODE	PC-101-25/PC-103-27/MC-109-11/PC-101/PC-103/LC-105/LC-107/MC-109/ P-101/P-103/L-105/L-107/M-109/O-113/ PC-B-1222/MC-B-5922/PC-C-1914/PC-C-1952/ PC-C-C-1953
CHEMICAL CLASS	Inorganic Lead compound, inorganic salt.
CHEMICAL FORMULA	XPbCrO ₄ YPbSO ₄

2- COMPOSITION AND INFORMATION ON INGREDIENTS

Cas Number	EC (EINECS) Number	Chemical Name	Formula	% Lead Chromate
1344-37-2	231-846-0	Lead sulpho chromate	XPbCrO ₄ YPbSO ₄	>60

3- HAZARDS IDENTIFICATION

HAZARD DESCRIPTION	T Toxic N Dangerous for the environment
INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT	R 61 May cause harm to the unborn child R 62 Possible risk of impaired fertility R 33 Danger of cumulative effects. R 40 Possible risks of irreversible effects.

4- FIRST AID

LIMITS OF EXPOSURE	
LONG TIME EXPOSURE	ACUTE, CHRONIC
	FIRST AID
EYE CONTACT : Harmful.	In case of contact, immediately flush eyes with water for at least 15 min. Call a physician.
SKIN CONTACT : Harmful.	Flush skin with water and soap, Wash clothes before reuse.
INGESTION : Harmful.	Call a physician.
INHALATION : Harmful.	If not breathing perform artificial respiration, if breathing give fresh oxygen. Remove to fresh air and call a physician.
TOXIC TYPE :	T
OTHER ADVISES :	As Antidote : dextrose/water, intravenous; mannitol solution, intravenous; dimercaprol, intramuscular; calcium disodium edetate/procaine, intramuscular; penicillamine, oral. dimercaprol, intramuscular.

5- FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS	Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam
PROTECTIVE EQUIPMENT	Wear self-contained respirator. Wear fully protective impervious suit.

6- ACCIDENTAL RELEASE MEASURES

PERSON RELATED SAFETY PRECAUTIONS	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
MEASURES FOR ENVIRONMENTAL PROTECTION	Inform respective authorities in case of seepage into water course or sewage system. Do not allow material to be released to the environment without proper governmental permits.
MEASURES FOR CLEANING / COLLECTING	Dispose contaminated material as waste according to item 13.
OTHER PROCEDURES	See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7- HANDLING AND STORAGE

STORING and LOADING PRECAUTIONS	Keep away from eye and skin contact. Place in closed containers. Keep away from food. If contacted wash thoroughly.
HANDLING	Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Open and handle container with care.
OTHERS	Do not inhale and protect from flammable media.

8- EXPOSURE CONTROLS AND PERSONAL PROTECTION

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 0.5 m per second.

Components with limit values that require monitoring at the workplace:

Lead chromate	Mg/m ³
ACGIH TLV	0,05 as Pb 0,05 as Cr
BELGIUM TWA	0,05
GERMANY TWA	0,05
NETHERLANDS TWA	0,05
USA PEL	0,001 as Cr(VI)

Personal Protection

EYES	Safety glasses or goggles. Eye-flushing stations.
SKIN	Rubber gloves and protective clothes, apron, impervious gloves.
INHALATION	Use required respirators in case of high concentrations.
LOCAL VENTILATION EXITS	Mechanical(General) local ventilation is enough.
OTHER PROTECTIVE EQUIPMENTS	The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Store protective clothing separately.

9- PHYSICAL AND CHEMICAL PROPERTIES

FORM	Powder, crystals	SOLUBILITY IN WATER	Insoluble
MELTING POINT	844°C	COLOUR	Yellow
BOILING POINT	Decomposes	ODOR	Odorless
FREEZING POINT	N/A	MOLECULAR WEIGHT	X(323)+Y(303)
BULK DENSITY	0,3-0,8 g/cm ³	EVAPORATION DENSITY	N/A
SPECIFIC GRAVITY	5,2-6,3	EVAPORATION RATE	N/A
OTHER DATA		pH	6,0–7,0

10- STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions
UNSTABILITY REASONS	Heat and easily oxidized media
POLIMERIZATION and ITS DANGERS	None.
UNSTABILITY CONDITIONS and DECOMPOSITION MATERIALS	Thermal decomposition products: oxides of lead, chromium compounds.

11- TOXICOLOGICAL INFORMATION

Acute toxicity and primary irritant effect.

ON THE SKIN	Irritant to skin and mucous membranes.
ON THE EYE	Strong irritant with the danger of severe eye injury.
SENSITIZATION	No sensitizing effects known.
SUBACUTE TO CHRONIC TOXICITY	Lead and lead compounds may cause abdominal pain, diarrhea, loss of appetite, metallic taste, nausea, vomiting, lassitude, insomnia, muscle weakness, joint and muscle pain, irritability, headache and dizziness. Red blood cells may be damaged resulting in anemia. Gastritis and injury to the kidneys, liver, male gonads, and central nervous system may also occur. Chromium (VI) compounds may cause skin ulceration, gastrointestinal irritation with vomiting and diarrhea, kidney and liver damage. Overexposure may be fatal. Dusts are extremely irritating to the eyes, nose, throat and bronchial tubes. May cause cancers of the lungs, nasal cavity, sinuses, stomach and larynx.
ADDITIONAL TOXICOLOGICAL INFORMATION	May cause harm to the unborn child. Possible risk of impaired fertility. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a causal association between exposure and cancer.
CARCINOGEN STATUS	NTP: Known Human Carcinogen; IARC: Human Inadequate Evidence, Animal Sufficient Evidence, Group 2B (Lead and inorganic lead compounds), Human Sufficient Evidence, Animal Sufficient Evidence, Group 1 (Hexavalent chromium compounds); ACGIH: A2 -Suspected Human Carcinogen; TRGS 905: K 3 An excess risk for lung and sinonasal cancer has been reported in workers in the chromate production, chromate pigment production and chromium plating industries. Lead chromate and derived pigments have been tested by intrabronchial implantation in rats without producing a significant increase in the incidence of tumors. Lead chromate and derived pigments have also been tested in rats by subcutaneous and intramuscular injection, producing malignant tumors at the site of injection and, in one study, renal carcinomas. A study by intrapleural administration to rats could not be evaluated. No increase in tumor incidence was observed when lead chromate was administered intramuscularly to mice.

>12 gm/kg oral-mouse LD50; 156 mg/kg intraperitoneal-guinea pig LD75; 11250 mg/kg/90 day(s) continuous oral-dog TDLo.

MAK value for lead < 0,1 mg/m³.

BAT values for lead in the blood < 70µg/dL.

Lead(blood-women < 45 years) < 30µg/dL.

?-Aminolevulinic acid (women < 45 years) < 6 mg/dL.

TLV-TWA value for lead < 0,15 mg/m³.

Carcinogenic effects : None.

12- ECOLOGICAL INFORMATION

Also poisonous for fish and plankton in water bodies. Do not allow material to be released to the environment without proper governmental permits. Dust emissions from approved manufacturing plants must not exceed 5 mg/m³ for lead and chromium with a total mass flow exceeding 25g/h.

13- DISPOSAL INFORMATION

Consult state, local or national regulations for proper disposal. Disposal must be made according to official regulations.

14- TRANSPORT INFORMATION

PROPER SHIPPING NAME : LEAD COMPOUND,SOLUBLE n.o.s.

HAZARD CLASS : 6.1

U.N. NUMBER : 2291

PACKING GROUP : III

Land transport ADR/RID (cross-border)

ADR/RID CLASS : 6.1

U.N. NUMBER : 2291

ITEM : 62C

Maritime transport IMDG:

IMDG CLASS : 6.1

PAGE NUMBER : 6170

U.N. NUMBER : 2291

PACKING GROUP : III

15- REGULATIONS

Hazard symbols :

T : Toxic

N : Dangerous for the environment

EUROPEAN RISK and SAFETY CODES

- | | |
|------|---|
| R 61 | May cause harm to the unborn child. |
| R 62 | Possible risk of impaired fertility. |
| R 33 | Danger of cumulative effects. |
| R 40 | Possible risks of irreversible effects. |
| | |
| S 53 | Avoid exposure - obtain special instructions before use. |
| S 45 | In case of accident or if you feel unwell, seek medical advice immediately. |

16- OTHER INFORMATION

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.