<u>GHS Safety Data Sheet</u>

SDS No. : CRE01PAEG

Date Issued : 2004/11/24 Last updated : 2020/07/07

Section 1. Identification of the substance or mixture and of the supplier Product Information

Product name: Cr Chromium

Product	Purity	Form	Size	Product	Purity	Form	Size
number:	I diloj	rorm	(µm) number:	i diloj	i alloy i olim	(mm)	
CRE02PB	98%up	fine powder	10	CRE12GB	99.9%(3N)	grains	$2.36 \sim 4$
CRE03PB	99%(2N)	powder	≤ 63	CRE04GB	99.9%(3N)	grains	$1.4 \sim 2.36$
CRE04PB	99.9%(3N)	powder	$180 \sim 300$	CRE13GB	99.9%(3N)	grains	$1.4 \sim 2.36$
CRE05PB	99.9%(3N)	powder	$125 \sim 180$	CRE14GB	99.9%(3N)	grains	$0.6 \sim 1.4$
CRE06PB	99.9%(3N)	powder	$90 \sim 125$	CRE11GB	99.99%(4N)	lumps	ca.30~50
CRE07PB	99.9%(3N)	powder	$63 \sim 90$	CRE06GB	99.99%(4N)up	lumps	ca.5~10
CRE08PB	99.9%(3N)	powder	≤ 63	CRE07GB	99.99%(4N)up	grains	$1.7 \sim 4$
CRE11PB	99.99%(4N)	powder	≤ 180	CRE15GB	99.99%(4N)	grains	ca.2 \sim 5
	98%	powder	30	CRE01RB	99.9%(3N)	tablets	$\phi 10 imes t5$
_	99.9%(3N)	powder	$\#50 \sim 100$	CRE01CB	99.9%(3N)	chips	$5 \times 5 \times t1$

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284

Phone: +81-49-284-1511 Fax: +81-49-284-1351

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Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Serious eye damage/ eye irritation: Category 2B Respiratory sensitization : Category 1 Skin sensitization : Category 1 Germ cell mutagenicity: Category 2 Specific target organ toxicity, single exposure : Category2, 3	No data available	Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which, in contact with water, emit flammable gases : Not classified
GHS Label: C, W		



Pictograms or symbols:

Warning word: DANGER	
Hazard information	Description of precaution
Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing genetic defects.	Obtain special instructions. Read and understand all safety precautions before handling. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling.
Suspected of causing genetic defects.	Take off the contaminated clothing and wash before reuse.

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May cause damage to organs. (systemic toxicity)	Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in well-ventilated area. IF INHALED: Remove victim to fresh air and keep at rest in a position	
May cause respiratory irritation.	comfortable for breathing.IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.IF ON SKIN: Remove immediately all contaminated clothing and rinse skin with water/shower. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention.	
	Call a POISON CENTER or doctor/physician if you feel unwell. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/ container in accordance with local/national regulations.	

Section 3. Composition / information on ingredients

Chemical or common name:	Chromium
Chemical formula:	Cr
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	7440-47-3
RTECS#:	GB4200000
TSCA inventory :	listed
EINECS:	2311575

Section 4. First aid measures

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.		
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water.		
	Contact physician if irritation continues.		
Inhalation:	Remove the exposed person immediately and provide fresh air.		
	Get medical attention.		
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.		
Section 5. Fire fighting measures			
Extinguishing media: Use media appropriate for surrounding fire.			

Extinguishing media:Use media appropriate for surrounding fire.Fire fighting:The product is not combustible.Self-contained breathing apparatus and full protective clothing should be
used, if the material is involved in fire.

Section 6. Accidental release measures

Personal Precautions:			
Workers should use protective wears to prevent contact with the spilt adhesive and			
inhalation of its vapor/dusts.			
Environmental hazard precautions:			
Shut off leak if without risk.			
Prevent flow out to river, etc. so as not to badly affect.			
Method for containment and cleaning up:			
Indoor leakage: Ventilate as much as possible until the cleaning is completed.			
Outdoor leakage: Work from the windward and evacuate the leeward crowd.			
Gather up, pack in closed container as much as possible.			
Carefully collect remnant and move to a safe place.			



Section 7. Hand	ling and s	torage			
Precautions to be ta	•	-			
	contact is foreseen.				
		ed or repeated exposure.			
Precautions to be ta					
General precautions:		e material in a sealed container.			
General presautions		a cool, dry, well ventilated and dark place away from incompatible			
	materia				
Section 8. Expos		ols / personal protection			
Exposure guideline:		2019) : TLV-TWA 0.5 mg/m ³			
Exposure guidenne.		$006) : PEL-TWA = 1 \text{ mg/m}^3$			
Facility measures:		tilation of closed work room or total proper ventilation to prevent			
Facility measures.	inhalatio				
Protective ware:		ropriate NIOSH/MSHA-approved respirator, safety goggles,			
11000001VC wales		re gloves etc.			
Section 0 Dhuri	_				
•		nemical properties			
Color and Form:	Metallic si	ilver solid			
Chemical formula:	Cr				
Formula weight:	52.0				
Melting point:	1860 ℃				
Boiling point:	2671 ℃				
Density:	7.19 g/cm^3				
Water solubility:	Insoluble				
Flammability:		ustible substance			
Oxidation:	None				
	lity and r				
Stability:	Stable in o	closed container under room temperature.			
Reactvity					
Condition to avoid:	No data available.				
Incompatibility:	Strong aci	id, strong oxidizing agents			
Section11. Toxic	ological in	nformation			
Acute toxicity:		GHS : No data available			
Skin corrosive / irritat	cion:	GHS : No data available			
Serious eye damage / i	irritation:	GHS : Category 2B ; Causes eye irritation.			
Respiratory sensitization:		GHS : Category 1 ; My cause allergy or asthma symptoms or			
		breathing difficulties if inhaled.			
Skin sensitization:		GHS : Category 1 ; May cause an allergy skin reaction.			
Germ cell mutagenicity:		GHS : Category 2 ; Suspected of causing genetic defects.			
Carcinogenicity:		GHS : Not classified ; Falls below the lowest level.			
		Carcinogenicity:			
		Chemical NameACGIH(2019)IARC(2018)NTP(2016)ChromiumA43-			
		ACGIHA4Not classifiable as a human carcinogen.IARC3Not classifiable as to its carcinogenic to humans.			

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Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
-single exposure:	GHS : Category 2 ; May cause damage to organs.
	(systemic toxicity)
	Category 3; May cause respiratory irritation
-repeated exposure:	GHS : No data available
Aspiration hazard:	GHS : No data available

Section12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

-acute toxicity:	GHS : No data available
-chronic toxicity:	GHS : No data available
Hazardous to the ozone layer	GHS : No data available
	No Freon or Halon
Fish toxicity:	No data available
Degradability:	No data available
Bioaccumulative potential:	No data available
Mobility in soil:	No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

ransported in a secure position, in a well-ventilated vehicle.

Section 15. Regulatory information

TSCA inventory: Listed. Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product. Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.

