

Camlab Limited – Material Safety Data Sheet


1. Identification

Product Code CC/0534-CH

Product Name **POTASSIUM DICHROMATE pure**

Molecular Formula **$K_2Cr_2O_7$ =294.18**

CAS Number 7778-50-9

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2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Chromium (VI) compounds (as Cr)	7789-09-5	232-143-1	> 99.8%	T+ N : R49,R46,R1,R8,R21,R25,R26, R37/38,R41,R43,R50/53	WEL

3. Hazards Identification



May cause cancer by inhalation. May cause heritable genetic damage. Harmful in contact with skin. Toxic if swallowed. Very toxic by inhalation. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitisation by skin contact. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. Carcinogen category: 2

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. Unless contact has been slight OBTAIN MEDICAL ATTENTION

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. Unless contact has been slight OBTAIN MEDICAL ATTENTION

Inhalation Remove from exposure. Irrigate mouth and nasal passage with water. OBTAIN MEDICAL ATTENTION.

Ingestion If conscious give several glasses of water to drink and 5-10g of ascorbic acid dissolved in water. Do not induce vomiting. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY. Obtain advice from national poisons information service, New Cross Hospital 0171-639-4380

5. Fire Fighting Measures

Hazards Not combustible but assists burning. Contact with combustible material may cause a fire. Fire-fighters should wear protective clothing and breathing apparatus.

Extinguishing Media Consider what other flammable materials are present and act accordingly.

Unsuitable Media Nothing specified.

6. Accidental Release Measures

Personal Protection	Avoid breathing dust-wear respiratory protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. Keep combustible material away from spillage.
Major Spillage	Shovel/sweep up into container for removal Small areas of contamination should be treated with ferrous sulphate solution to reduce the chromium to the safer (trivalent) form and the pH adjusted to 8.5 prior to disposal. Wash area down with copious amounts of water.
Minor Spillage	Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction. Small areas of contamination should be treated with ferrous sulphate solution to reduce the chromium to the safer (trivalent) form and the pH adjusted to 8.5 prior to disposal. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.
Storage Conditions	Store in a suitable area for oxidising agents. Do not store on wooden surfaces. Keep well separated from combustible materials.

8.1 Workplace Exposure Limits

Component	CAS No	Workplace Exposure Limits				Maximum Exposure Limits			
		Long Term		Short Term		Long Term		Short Term	
		ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³
Chromium (VI) compounds (as Cr)	7789-09-5	-	0.0500	-	-	-	0.0500	-	-

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain dust concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hands	Use nitrile gloves or PVC gauntlets.
Eyes	Use chemical splash proof glasses or goggles.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Orange red crystals.
Odour	Odourless.
pH	4 (10% at 20C)
Boiling point	500.0 °C
Melting point	398.0 °C
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	Mildly oxidising in solution, strongly oxidising in strong acid solution.
Vapour Pressure	Not applicable
Relative Density	2.6800 °C
Water Solubility	10.5%

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions but starts to decompose at 500C liberating oxygen.
Conditions to Avoid	No specific conditions.
Materials to Avoid	Many organic compounds. Combustible materials. Acids. Alkalis.
Hazardous Decomposition Products	Liberates oxygen on decomposition which will assist in a fire.

11. Toxicological Information

Eyes	The solid and solutions will cause severe irritation and corneal damage.
Skin	The solid and solutions will highly irritating and corrosive to the skin, local inflammation can occur from 5% solutions. Contact with broken skin may lead to ulcers especially on the hands and forearms. Can be absorbed through the skin and cause systemic poisoning and subsequent kidney damage. May cause sensitisation by skin contact.
LD50 Skin	Rabbit 1170mg/Kg
Ingest	Ingestion will cause cause dental discolouration, nausea, vomiting, diarrhoea, and cardiovascular shock due to blood loss into the gastrointestinal tract. Necrosis of the liver and kidneys may also occur.
LD50 Ingest	Oral rat 57mg/Kg
Inhalation	Inhalation of dust will produce severe irritation of the eyes, nose, throat and respiratory tract. Causes inflammation of the larynx, bronchitis, and ulceration of the nasal septum.
Carcinogenicity	It is suspected as a long term carcinogen in man but evidence is inconclusive.
Mutagenicity	A mutagen.
Reproductive Effects	A high incidence of clinical and delivery complications has been reported in pregnant women involved in potassium dichromate production. There is evidence of movement across the placenta.

12. Ecological

Chromium (VI) will eventually be reduced to Chromium (III) by organic matter in water. Unlikely to bio-accumulate. Toxicity to fish-LC50 (Fathead minnow) 96hr - 105 mg/l. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

13. Disposal Considerations

Disposal Methods	Never dispose of into water courses or sewerage systems. Treat with ferrous sulphate solution to reduce the chromium to the safer (trivalent) form. The pH should be adjusted to 8.5, with sodium hydroxide or sodium carbonate, prior to disposal.
Contaminated Packaging	Use a licensed waste disposer.

14. Transport Information

Proper Shipping Name	Toxic Solid, Inorganic, N.O.S.
UN Number	3288
UN Classification	6.1 Toxic
Subsidiary Risk	None
Flash Point	Not available
Packing Group	III
Transport Category	2
Marine pollutant	No
ADR Hazard ID	60



15. Regulatory Information

Labelling Very Toxic, Dangerous for the Environment.

Classification

Label Symbols

T+



N



Risk & safety Phrases May cause cancer by inhalation. May cause heritable genetic damage. Harmful in contact with skin. Toxic if swallowed. Very toxic by inhalation. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitisation by skin contact. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. Avoid exposure - obtain special instruction before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label). This material and/or its container must be disposed of as hazardous waste. Avoid release to the environment, refer to special instructions/safety data sheet. Carcinogen category: 2

EEC Number 231-906-6

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

Revision Date: 1/03/06.

Data reviewed and PDF file generated: 19/07/07.

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