

ACROS ORGANICS

Material Safety Data Sheet

Creation Date 08-Jul-2009

Revision Date 14-Sep-2012

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Potassium dichromate	
Cat No.	AC197760000; AC197760010; AC197760050; AC197765000	
Synonyms	Potassium bichromate.; Dipotassium dichromate; Dichromic acid, dipotassium salt	
Recommended Use	Laboratory chemicals	
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Entity / Business Name Acros Organics One Reagent Lane Fair Lawn, NJ 07410	Emergency Telephone Number For information in the US, call: 001-800- ACROS-01 For information in Europe, call: +32 14 57 52 11 Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 001-201-796-7100 CHEMTREC Phone Number, US: 001-800- 424-9300 CHEMTREC Phone Number, Europe: 001- 703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Oxidizer: Contact with combustible/organic material may cause fire. Cancer hazard. Toxic. May be fatal if inhaled, absorbed through skin, or swallowed. Causes burns by all exposure routes. May cause harm to the unborn child. May cause heritable genetic damage. May impair fertility. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance Orange

Physical State Solid

odor odorless

Target Organs

Eyes, Skin, Respiratory system, Reproductive System, Liver, Kidney, Blood

Potential Health Effects

Acute Effects**Principle Routes of Exposure**

Eyes	May cause irritation. Causes burns.
Skin	May be fatal if absorbed through skin. Causes burns.
Inhalation	May be fatal if inhaled. Causes burns.
Ingestion	May be fatal if swallowed. Causes burns. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

Cancer hazard.. Toxic: danger of serious damage to health by prolonged exposure through inhalation. Repeated or prolonged contact causes sensitization, asthma and eczemas.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Preexisting eye disorders. Kidney disorders. Liver disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Potassium dichromate	7778-50-9	>95

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	No information available.
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.

Sensitivity to mechanical impact
Sensitivity to static discharge

No information available.
No information available.

Specific Hazards Arising from the Chemical

May ignite combustibles (wood paper, oil, clothing, etc.).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health 4** **Flammability 0** **Instability 2** **Physical hazards OX**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep away from clothing and other combustible materials. Avoid dust formation.

7. HANDLING AND STORAGE

Handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe vapors/dust. Do not ingest.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium dichromate	TWA: 0.05 mg/m ³	(Vacated) Ceiling: 0.1 mg/m ³	IDLH: 15 mg/m ³ TWA: 0.001 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Potassium dichromate	TWA: 0.05 mg/m ³	TWA: 0.5 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.05 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Orange
odor	odorless
Odor Threshold	No information available.
pH	4 (5 % Solution)
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	500°C / 932°F
Melting Point/Range	398°C / 748.4°F
Decomposition temperature	> 500°C
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	2.676
Solubility	Partly soluble in water
log Pow	No data available
Molecular Weight	294.19
Molecular Formula	Cr ₂ K ₂ O ₇

10. STABILITY AND REACTIVITY

Stability

Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid

Incompatible products. Excess heat. Combustible material. Avoid dust formation.

Incompatible Materials	Strong oxidizing agents, Reducing agents, Acids, Strong bases, Acid anhydrides
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust)
Potassium dichromate	25 mg/kg (Rat)	1150 mg/kg (Rabbit)	0.09 mg/L/4h (Rat)

Irritation Causes burns by all exposure routes

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Potassium dichromate	A1	Group 1	Not listed	X	A1

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Sensitization No information available.

Mutagenic Effects May cause heritable genetic damage

Reproductive Effects May impair fertility.

Developmental Effects Component substance is listed on California Proposition 65 as a developmental hazard.

Teratogenicity May cause harm to the unborn child.

Other Adverse Effects See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium dichromate	Not listed	15.41-30.36 mg/L LC50 96 h 14-20.9 mg/L LC50 96 h 113.6-155.7 mg/L LC50 96 h 139 mg/L LC50 96 h 320 mg/L LC50 96 h 65.6-137.6 mg/L LC50 96 h 12.3 mg/L LC50 96 h 21.209-30.046 mg/L LC50 96 h 23-41.2 mg/L LC50 96 h 24.81-34.55 mg/L LC50 96 h 26 mg/L LC50 96 h	Not listed	EC50: 1.4 mg/L 24h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No	UN3087
Proper Shipping Name	OXIDIZING SOLID, TOXIC, N.O.S.
Proper technical name	Potassium dichromate
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packing Group	II

TDG

UN-No	UN3087
Proper Shipping Name	OXIDIZING SOLID, TOXIC, N.O.S.
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packing Group	II

14. TRANSPORT INFORMATION

IATA

UN-No UN3087
Proper Shipping Name Oxidizing solid, toxic, n.o.s
Hazard Class 5.1
Subsidiary Hazard Class 6.1
Packing Group II

IMDG/IMO

UN-No UN3087
Proper Shipping Name Oxidizing solid, toxic, n.o.s
Hazard Class 5.1
Subsidiary Hazard Class 6.1
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Potassium dichromate	R	X	-	231-906-6	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

Component	TSCA 12(b)
Potassium dichromate	Section 6

SARA 313

Not applicable

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
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Potassium dichromate	7778-50-9	>95	0.1
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SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Potassium dichromate	X	10 lb	X	-

Clean Air Act

Not applicable

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Potassium dichromate	X		-

OSHA

Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Potassium dichromate	5 µg/m ³ TWA 2.5 µg/m ³ Action Level	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Potassium dichromate	10 lb	-

California Proposition 65

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65	Prop 65 NSRL
Potassium dichromate	7778-50-9	Carcinogen Developmental Female Reproductive Male Reproductive	-

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium dichromate	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations**Mexico - Grade**

No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

C Oxidizing materials

D1A Very toxic materials

D2A Very toxic materials

D2B Toxic materials

E Corrosive material

**16. OTHER INFORMATION****Prepared By**

Regulatory Affairs
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Revision Summary

(M)SDS sections updated 3 11

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS