Material Safety Data Sheet
Potassium Dichromate Solutions, 0-4% w/v

Section 1 - Chemical Product and Company Identification

MSDS Name:
Potassium Dichromate Solutions, 0-4% w/v

Catalog Numbers:
LC18945, LC18950, LC18960, LC18980, LC19000, LC19010, LC19020

Synonyms:
Potassium bichromate solutions

Company Identification:
LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:
(412) 826-5230

Emergency Phone Number:
(800) 424-9300

CHEMTREC Phone Number:
(800) 424-9300 or
011-703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	>95
7778-50-9	Potassium dichromate	0.12 - 4

Section 3 - Hazards Identification

Emergency Overview

Appearance: *Clear, orange solution*

Danger! May be fatal if inhaled or swallowed. Strong oxidizer. May cause irritation or burns by all exposure routes. May cause allergic respiratory and skin reaction. May impair fertility. May cause harm to the unborn child. Harmful if absorbed through the skin. Cancer hazard. May cause heritable genetic damage.

Target Organs: *Blood, kidneys, liver, lungs, respiratory and gastrointestinal systems, teeth, eyes, skin.*

Potential Health Effects

Eye:
May cause eye irritation or burns.

Skin:
Harmful if absorbed through the skin. May cause skin irritation or burns. May cause skin sensitization.

Ingestion:
May be fatal if swallowed. May cause gastrointestinal tract burns. May cause kidney damage.

Inhalation:
May be fatal if inhaled. May cause allergic respiratory reaction. May cause liver and kidney damage. May cause respiratory tract irritation.

Chronic:
May cause respiratory tract cancer. May cause liver and kidney damage. Laboratory experiments have resulted in mutagenic effects. Possible risk of harm to the unborn child. Repeated or prolonged exposure may cause erosion and discoloration of the teeth. May impair fertility.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.

Ingestion:
Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:
Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary, using a mechanical device such as a bag and mask or one-way valve. Get medical aid at once.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode if exposed to fire.

Extinguishing Media:
Use water only! Do NOT use dry chemical. Do NOT use halocarbons and sodium bicarbonate. Do NOT use carbon dioxide or dry chemical. Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out.

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
Health- 3, Flammability- 0, Instability- 0

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal. Do not use combustible materials such as paper towels to clean up spill.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing. Use with adequate ventilation.

Storage:

Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Potassium dichromate	0.05 mg/m3 TWA (as Cr) (listed under Chromium (VI) compounds- water soluble).	0.001 mg/m3 TWA (as Cr) (listed under Chromates). 15 mg/m3 IDLH (as Cr(VI)) (listed under Chromates).	5 µg/m3 TWA (listed under Chromium (VI) compounds). 0.1 mg/m3 Ceiling (as CrO3, applies to any operations or sectors for which the Hexavalent Chromium standard [29 CFR 1910.1026] is stayed or is otherwise not in effect) (listed under Chromates).

OSHA Vacated PELs:

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

Skin:
Wear appropriate protective gloves to prevent skin exposure.
Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Orange
Odor:	Odorless
pH:	4 (5% solution)
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Evaporation Rate:	No information found.
Viscosity:	No information found.
Boiling Point:	No information found.
Freezing/Melting Point:	No information found.
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	1.0
Molecular Formula:	No information found.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid:
Incompatible materials, excess heat, combustible materials, organic materials.
Incompatibilities with Other Materials:
Reducing agents, acids, strong bases, acetic anhydride, hydrazine, hydroxylamine, nitric acid, oils, hydrochloric acid.
Hazardous Decomposition Products:
Oxygen, oxides of potassium, chromium dioxide, toxic chromium oxide fumes.
Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7732-18-5: ZC0110000.
CAS# 7778-50-9: HX7680000.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg
CAS# 7778-50-9:
Draize test, rabbit, eye: 140 mg Severe
Oral, rat: LD50 = 25 mg/kg
Skin, rabbit: LD50 = 14 mg/kg
Inhalation, rat: LC50 = 0.094 mg/L/4H (Merck)

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7778-50-9: Listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, and CA Prop 65.

Epidemiology:

Certain hexavalent chromium compounds have been demonstrated to be carcinogenic on the basis of epidemiological investigations on workers and experimental studies in animals.

Teratogenicity:

Oral, rat: TDLo = 1 g/kg (female 0-19 day(s) after conception) Specific Developmental Abnormalities - musculoskeletal system.; Oral, mouse: TDLo = 1 g/kg (female 20 day(s) pre-mating) Effects on Embryo or Fetus - extra-embryonic structures (e.g., placenta, umbilical cord) and Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus).

Reproductive:

Oral, rat: TDLo = 525 mg/kg (female 21 day(s) after conception) Fertility - pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea) and Fertility - post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants).

Mutagenicity:

Micronucleus Test: Human, Lymphocyte = 300 µg/L.; Morphological Transformation: Human, Fibroblast = 200 nmol/L.; DNA Damage: Human, Fibroblast = 500 nmol/L.; Unscheduled DNA Synthesis: Human, Fibroblast = 50 µmol/L.; DNA Inhibition: Human, Fibroblast = 100 µmol/L.; DNA Inhibition: Human, HeLa cell = 13 µmol/L.; Mutation Test Systems - not otherwise specified: Human, Fibroblast = 100 µmol/L.

Neurotoxicity:

No information available.

Section 12 - Ecological Information

Ecotoxicity:

Fish: Striped bass: LC50 = 75 mg/L; 96 Hr; Static bioassay
Fish: Fathead Minnow: LC50 = 17,300 µg/L; Unspecified; as chromium (Unspecified)
Fish: Bluegill/Sunfish: LC50 = 118,000 – 133,000 µg/L; Unspecified; as chromium (Static unmeasured)
Water flea Daphnia: EC50 = 1,570 µg/L; 24Hr; as chromium (Unspecified)

Environmental:

Most of the chromium in surface waters may be present in particulate form as sediment. Some of the particulate chromium would remain as suspended matter and ultimately be deposited in sediments. Chromium is present usually as Cr(III) in the soil and is characterized by its lack of mobility, except in case where Cr(VI) is involved. Chromium (VI) of natural origin is rarely found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7778-50-9 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 7778-50-9: final RQ = 10 pounds (4.54 kg)

CERCLA/SARA Section 313:

This material contains Potassium dichromate (listed as Chromium (VI) compounds), 0-4%, (CAS# 7778-50-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous:

None of the components are on this list.

US State

State Right to Know:

Potassium dichromate can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations:

WARNING: This product contains Potassium dichromate, listed as `Chromium (VI) compounds', a chemical known to the state of California to cause cancer.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7778-50-9 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7778-50-9 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: January 31, 1999
Revision Date: September 13, 2011

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