

SAFETY DATA SHEET

CHEM SERVICE Inc.

1. Identification

Product identifier Potassium dichromate

Other means of identification

Item NG-I99

Synonyms Potassium bichromate

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.

Address 660 Tower Lane
West Chester, PA 19380
United States

Telephone Toll Free 800-452-9994
Direct 610-692-3026

Website www.chemservice.com

E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300
Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 4
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1B
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement	May intensify fire; oxidizer. Toxic if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat. Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
Response	If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Potassium dichromate	Potassium bichromate	7778-50-9	100

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact

IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. Contact with combustible material may cause fire. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Dry chemical powder. Carbon dioxide (CO2). Alcohol resistant foam.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Wear self contained breathing apparatus for fire fighting if necessary.

Specific methods

Cool containers exposed to flames with water until well after the fire is out.

General fire hazards

May intensify fire; oxidizer. Contact with combustible material may cause fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. Wear respiratory protection. Avoid dust formation. Avoid breathing gas. Avoid breathing mist or vapor. Avoid inhalation of dust.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate the contaminated area. Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Minimize dust generation and accumulation. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Wear appropriate protective equipment and clothing during clean-up.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Avoid formation of dust and aerosols. For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code". Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from heat and sources of ignition.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Do not store near combustible materials. Store away from incompatible materials (see Section 10 of the SDS). Keep container tightly closed in a dry and well-ventilated place. Do not store near acids.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Material	Type	Value
Potassium dichromate (CAS 7778-50-9)	TWA	0.005 mg/m3

US. OSHA Table Z-2 (29 CFR 1910.1000)

Material	Type	Value
Potassium dichromate (CAS 7778-50-9)	Ceiling	0.1 mg/m3

US. ACGIH Threshold Limit Values

Material	Type	Value
Potassium dichromate (CAS 7778-50-9)	TWA	0.05 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Potassium dichromate (CAS 7778-50-9)	TWA	0.001 mg/m3

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling Time
Potassium dichromate (CAS 7778-50-9)	25 µg/l	Total chromium	Urine	*
	10 µg/l	Total chromium	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Frequent change is advisable.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Crystalline Solid

Color Red

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

748.4 °F (398 °C)

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 2.68 g/cm³

Solubility(ies)

Solubility (water) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Molecular formula Cr₂K₂O₇

Molecular weight 294.18 g/mol

Oxidizing properties May intensify fire; oxidizer.

10. Stability and reactivity

Reactivity Greatly increases the burning rate of combustible materials.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Heat. Contact with incompatible materials.

Incompatible materials Combustible material. Reducing agents. Organic materials. Powdered metal. Hydrazine. Acids.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

Ingestion Toxic if swallowed. Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing.

Information on toxicological effects

Acute toxicity Fatal if inhaled. Toxic if swallowed. Harmful in contact with skin. May cause an allergic skin reaction.

Product	Species	Test Results
Potassium dichromate (CAS 7778-50-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Dust</i>		
LC100	Rat	<= 1.72 mg/l, 4 Hours
<i>Aerosol</i>		
LC50	Rat	83 mg/m3, 4 Hours
LC50	Rat	0.029 mg/l, 4 Hours
Oral		
LD50	Mouse	190 mg/kg
	Rat	67 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	May cause genetic defects.
Carcinogenicity	May cause cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Potassium dichromate (CAS 7778-50-9)	1 Carcinogenic to humans.
US. National Toxicology Program (NTP) Report on Carcinogens	
Potassium dichromate (CAS 7778-50-9)	Known To Be Human Carcinogen.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Potassium dichromate (CAS 7778-50-9)	Cancer
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.	
Product	Species	Test Results
Potassium dichromate (CAS 7778-50-9)		
Aquatic		
Crustacea	EC50	Water flea (Moina australiensis) 0.0202 - 0.0282 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 15.41 - 30.36 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

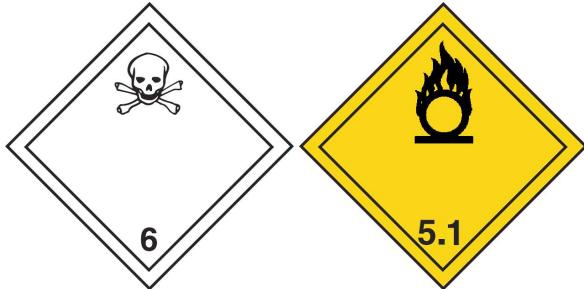
UN number	UN3086
UN proper shipping name	Toxic solids, oxidizing, n.o.s.
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	5.1
Label(s)	6.1, 5.1
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB6, IP2, T3, TP33
Packaging exceptions	153
Packaging non bulk	212
Packaging bulk	242

IATA

UN number	UN3086
UN proper shipping name	Toxic solid, oxidizing, n.o.s.
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	5.1
Packing group	II
Environmental hazards	No.
ERG Code	6X
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN3086
UN proper shipping name	TOXIC SOLID, OXIDIZING, N.O.S.
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	5.1
Packing group	II
Environmental hazards	No.
Marine pollutant	No.
EmS	F-A, S-Q
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Potassium dichromate (CAS 7778-50-9) 0.1 % Annual Export Notification required.

CERCLA Hazardous Substance List (40 CFR 302.4)

Potassium dichromate (CAS 7778-50-9) Listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Potassium dichromate (CAS 7778-50-9)	Cancer
	Eye irritation
	Skin sensitization

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Potassium dichromate	7778-50-9	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Potassium dichromate (CAS 7778-50-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA)	Hazardous substance
Section 112(r) (40 CFR 68.130)	Priority pollutant

Safe Drinking Water Act (SDWA)	0.1 mg/l
	0.1 mg/l

US state regulations

US - New Jersey RTK - Substances: Listed substance

Potassium dichromate (CAS 7778-50-9)

US - Pennsylvania RTK - Hazardous Substances: All compounds of this substance are considered environmental hazards

Potassium dichromate (CAS 7778-50-9)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Potassium dichromate (CAS 7778-50-9)

US. Massachusetts RTK - Substance List

Potassium dichromate (CAS 7778-50-9)

US. New Jersey Worker and Community Right-to-Know Act

Potassium dichromate (CAS 7778-50-9)

US. Pennsylvania RTK - Hazardous Substances

Potassium dichromate (CAS 7778-50-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Potassium dichromate (CAS 7778-50-9)

US. Rhode Island RTK

Potassium dichromate (CAS 7778-50-9)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Potassium dichromate (CAS 7778-50-9) Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Potassium dichromate (CAS 7778-50-9) Listed: December 19, 2008

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Potassium dichromate (CAS 7778-50-9) Listed: December 19, 2008

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Potassium dichromate (CAS 7778-50-9) Listed: December 19, 2008

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-14-2017

Version # 01

NFPA ratings

Health: 4
Flammability: 0
Instability: 0
Special hazards: OX

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

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