

SAFETY DATA SHEET

1. Identification

| | | |
|---|---|-----------------|
| Product identifier | Ammonium chromate-powder | |
| Other means of identification | | |
| Item | NG-11265 | |
| CAS number | 7788-98-9 | |
| 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 1 |
| | Serious eye damage/eye irritation | Category 1 |
| | Sensitization, respiratory | Category 1 |
| | Sensitization, skin | Category 1A |
| | Germ cell mutagenicity | Category 1B |
| | Carcinogenicity | Category 1A |
| | Reproductive toxicity | Category 1 |
| | 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 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 | % |
|--------------------------|--------------------------|------------|-----|
| Ammonium chromate-powder | | 7788-98-9 | 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. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| 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. |
| 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. |
| Methods and materials for containment and cleaning up | <p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate the contaminated area. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimize dust generation and accumulation. Wear appropriate protective equipment and clothing during clean-up. Prevent product from entering drains. Stop the flow of material, if this is without risk.</p> <p>Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.</p> <p>Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.</p> |
| Environmental precautions | Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. |

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. Take any precaution to avoid mixing with combustibles. Keep away from clothing and other combustible materials. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. 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. |
| 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). |

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

| Material | Type | Value |
|--|------|-------------------------|
| Ammonium chromate-powder (CAS 7788-98-9) | TWA | 0.005 mg/m ³ |

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

| Material | Type | Value |
|--|---------|-----------|
| Ammonium chromate-powder (CAS 7788-98-9) | Ceiling | 0.1 mg/m3 |

US. ACGIH Threshold Limit Values

| Material | Type | Value |
|--|------|------------|
| Ammonium chromate-powder (CAS 7788-98-9) | TWA | 0.05 mg/m3 |

US. NIOSH: Pocket Guide to Chemical Hazards

| Material | Type | Value |
|--|------|-------------|
| Ammonium chromate-powder (CAS 7788-98-9) | TWA | 0.001 mg/m3 |

Biological limit values**ACGIH Biological Exposure Indices**

| Material | Value | Determinant | Specimen | Sampling Time |
|--|---------|----------------|----------|---------------|
| Ammonium chromate-powder (CAS 7788-98-9) | 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. 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

Observe any medical surveillance requirements. 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 Powder.

Color Yellow

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point 365 °F (185 °C) Decomposes

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 | < 0.0000001 kPa (77 °F (25 °C)) |
| Vapor density | Not available. |
| Relative density | Not available. |
| 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 | |
| Density | 1.8658 g/cm ³ estimated |
| Explosive properties | Not explosive. |
| Molecular formula | CrH ₈ N ₂ O ₄ |
| Molecular weight | 152.07 g/mol |
| Oxidizing properties | May intensify fire; oxidizer. |
| Specific gravity | 1.87 |

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 | Hazardous polymerization does not occur. |
| Conditions to avoid | Heat. Contact with incompatible materials. |
| Incompatible materials | Combustible material. Reducing agents. |
| 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. |
| 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

Ammonium chromate-powder (CAS 7788-98-9) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Ammonium chromate-powder (CAS 7788-98-9) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Ammonium chromate-powder (CAS 7788-98-9) Known To Be Human Carcinogen.

| | |
|---|--|
| 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. |
| Persistence and degradability | |
| 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 | UN3085 |
| UN proper shipping name | Oxidizing solid, corrosive, n.o.s. (Ammonium chromate) |
| Transport hazard class(es) | |
| Class | 5.1 |
| Subsidiary risk | 8 |
| Label(s) | 5.1, 8 |
| Packing group | II |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | 62, IB6, IP2, T3, TP33 |
| Packaging exceptions | None |
| Packaging non bulk | 212 |
| Packaging bulk | 242 |

IATA

| | |
|--------------------------------|--|
| UN number | UN3085 |
| UN proper shipping name | Oxidizing solid, corrosive, n.o.s. (Ammonium chromate) |

Transport hazard class(es)

Class 5.1
 Subsidiary risk 8
 Packing group II
 Environmental hazards No.
 ERG Code 5C

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

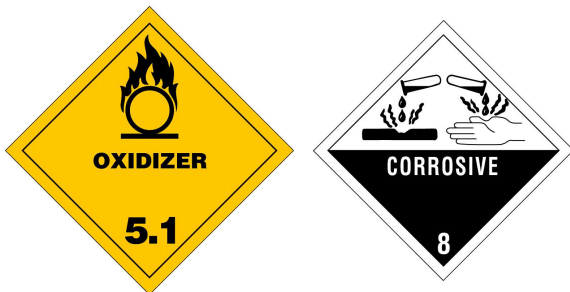
IMDG

UN number UN3085
 UN proper shipping name OXIDIZING SOLID, CORROSIVE, N.O.S. (Ammonium chromate)
 Transport hazard class(es)

Class 5.1
 Subsidiary risk 8
 Packing group II
 Environmental hazards
 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.

DOT**IATA; IMDG****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)

Ammonium chromate-powder (CAS 7788-98-9) 0.1 % Annual Export Notification required.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ammonium chromate-powder (CAS 7788-98-9) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Ammonium chromate-powder (CAS 7788-98-9) Cancer
 Eye irritation

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 Yes

SARA 313 (TRI reporting)
 Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Ammonium chromate-powder (CAS 7788-98-9)

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

Not regulated.

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

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

US state regulations 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

Ammonium chromate-powder (CAS 7788-98-9) Listed: February 27, 1987

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

Ammonium chromate-powder (CAS 7788-98-9) Listed: December 19, 2008

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

Ammonium chromate-powder (CAS 7788-98-9) Listed: December 19, 2008

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

Ammonium chromate-powder (CAS 7788-98-9) 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) | No |
| Canada | Non-Domestic Substances List (NDSL) | Yes |
| 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 11-04-2019
Revision date 11-04-2019
Version # 03

NFPA ratings

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

Disclaimer

Chem Service, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.

Copyright © 2000-2014 Chem Service, Inc. All rights reserved except that this SDS may be printed for the use of a customer or prospective customer of Chem Service, Inc provided the entire SDS is printed. The SDS may not be placed in any database or otherwise stored or distributed in electronic or any other form.

Revision information

This product is furnished FOR LABORATORY USE ONLY.
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
GHS: Classification