AMMONIUM CHROMATE

ACH

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
Diammonium chromate Neutral ammonium chromate	Solid crystals	Yellow	Ammonia odor
	Sinks and mixes with water.		

Avoid contact with solid. Keep people away.
Wear goggles and self-contained breathing apparatus.
Stop discharge if possible.
Isolate and remove discharged material.
Notify local health and pollution control agencies.
Protect water intakes.

Fire	Fire data not available. May explode when shocked or heated. Extinguish with water.
Exposure	CALL FOR MEDICAL AID. SOLID POISONOUS IF SWALLOWED OR INHALED. Irritating or corrosive to skin and mucous membranes. Severely irritating to eyes. Remove contaminated clothing. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.
Water Pollution	Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse
Stop discharge

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed
2.2 Formula: $(NH_4)_2CrO_4$
2.3 IMO/UN Designation: Not listed
2.4 DOT ID No.: Not listed
2.5 CAS Registry No.: 7788-98-9
2.6 NAERG Guide No.: 143
2.7 Standard Industrial Trade Classification: 51481

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Wear rubber gloves, industrial filter mask, face shield and safety glasses.
3.2 Symptoms Following Exposure: INHALATION: May cause irritation or ulceration of mucous membranes. EYES: Causes severe irritation and conjunctivitis. SKIN: Irritation, ulceration (chrome sores) where breaks in skin occur. INGESTION: Tends to act as its own emetic and purgative. Can cause stomach and kidney damage if retained.
3.3 Treatment of Exposure: Call a physician. INHALATION: Move to fresh air. EYES: Flush with water. SKIN: Wash with soap and water. INGESTION: Dilute with water or milk.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Currently not available
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Dust can cause lung cancer; a recognized carcinogen.
3.10 Vapor (Gas) Irritant Characteristics: Not pertinent
3.11 Liquid or Solid Characteristics: Causes smarting of the skin and first-degree burns on short exposure; may cause second-degree burns on long exposure.
3.12 Odor Threshold: Currently not available
3.13 IDLH Value: Not listed.
3.14 OSHA PEL-TWA: Not listed.
3.15 OSHA PEL-STEL: Not listed.
3.16 OSHA PEL-Ceiling: Not listed.
3.17 EPA AEGL: Not listed

4. FIRE HAZARDS

4.1 Flash Point: Not flammable
4.2 Flammable Limits in Air: Not pertinent
4.3 Fire Extinguishing Agents: Water
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
4.5 Special Hazards of Combustion Products: Decomposes producing toxic combustion products.
4.6 Behavior in Fire: Can explode when heated or shocked.
4.7 Auto Ignition Temperature: Not pertinent
4.8 Electrical Hazards: Currently not available
4.9 Burning Rate: Not pertinent
4.10 Adiabatic Flame Temperature: Not pertinent
4.11 Stoichometric Air to Fuel Ratio: Not pertinent
4.12 Flame Temperature: Not pertinent
4.13 Combustion Molar Ratio (Reactant to Product): Currently not available
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: Forms alkaline solution which evolves free ammonia.
5.2 Reactivity with Common Materials: Not pertinent
5.3 Stability During Transport: Stable - avoid shock, heat, and contact with reducing materials.
5.4 Neutralizing Agents for Acids and Caustics: Dissolve in water. Cover with soda ash and mix. Neutralize with 6 M HCl.
5.5 Polymerization: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent

6. WATER POLLUTION

6.1 Aquatic Toxicity: 96-hour TL_m, Mosquito fish = 240 mg/l 48 hour TL_m = 270 mg/l
6.2 Waterfowl Toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): Currently not available
6.4 Food Chain Concentration Potential: High positive. Trout can accumulate hexavalent Cr at levels as low as 0.001 ppm. Half life in total human body 616 days.
6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available Currently not available
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: Currently not available
7.4 Venting: Currently not available
7.5 IMO Pollution Category: Currently not available
7.6 Ship Type: Currently not available
7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed
8.2 49 CFR Class: Not pertinent
8.3 49 CFR Package Group: Not listed.
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification: Not listed
8.6 EPA Reportable Quantity: 10
8.7 EPA Pollution Category: A
8.8 RCRA Waste Number: Not listed
8.9 EPA FWPCA List: Yes

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Solid
9.2 Molecular Weight: 152.09
9.3 Boiling Point at 1 atm: Not pertinent, decomposes 356°F = 180°C = 453.2°K
9.4 Freezing Point: Decomposes 356°F = 180°C = 453.2°K
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 1.91 at 12°C
9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
9.12 Latent Heat of Vaporization: Not pertinent
9.13 Heat of Combustion: Not pertinent
9.14 Heat of Decomposition: Currently not available
9.15 Heat of Solution: Endothermic (at 25°C) 68.6 Btu/lb = 38.1 cal/g = 1.6 X 10^5 J/kg
9.16 Heat of Polymerization: Not pertinent
9.17 Heat of Fusion: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
40	25.079		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT
50	29.319						
60	32.145						
70	34.164						
80	35.678						
90	36.856						
100	37.798						
110	38.569						
120	39.211						
130	39.755						
140	40.221						
150	40.625						
160	40.978						