

Chromic Acid, 5%

1. Identification

Product Name: Chromic Acid, 5%
Synonyms: 5% Chromic Acid Solution
Recommended Use: N/A
Manufacturer/Supplier:
 Avantik
 19 Chapin Road - Building C
 Pine Brook, NJ 07058
 1-800-783-9424

Item #:

Restrictions on Use: N/A
In Case of Emergency:
 Chemtrec US 1-800-424-9300
 Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Acute Toxicity - Oral - Category 4
 Skin Corrosion - Category 1C
 Eye Damage - Category 1
 Specific Target Organ Toxicity (repeated exposure) - Category 2
 Carcinogenicity - Category 1A
 Germ Cell Mutagenicity - Category 1B
 Toxic to Reproduction - Category 2

Signal Word: Danger

Hazard Statement(s): Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause damage to organs (blood, respiratory system) through prolonged or repeated exposure. May cause cancer. May cause genetic defects. Suspected of damaging fertility of the unborn child.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection. Do not breathe dust, vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response: If swallowed: Call a doctor if you feel unwell. Rinse mouth. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing Call a doctor if you feel unwell. If exposed or concerned: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

| Chemical Name | Common Name | CAS # | Concentration % |
|-------------------|-------------|-----------|-----------------|
| Water | | 7732-18-5 | 95 |
| Chromium Trioxide | | 1333-82-0 | 5 |

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

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Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness. Irritation of the mucous membranes with sore throat and coughing. Irritation to gastrointestinal system.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store locked up. Store in a well-ventilated, cool place. Store away from acids. Store out of direct sunlight. Keep lid tightly closed when not in use. Do not store in metal containers, corrosive to metals.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

| Reagent | CAS # | OSHA PEL TWA |
|-------------------|-----------|---------------------------|
| Chromium Trioxide | 1333-82-0 | 5.0 µg/m ³ TWA |

ACGIH Threshold Limit Values (TLVs):

| Reagent | CAS # | ACGIH PEL TLV | ACGIH STEL |
|-------------------|-----------|------------------------|------------|
| Chromium Trioxide | 1333-82-0 | 0.05 mg/m ³ | |

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Orange/Brown, Orange/Brown Liquid

Molecular Weight: N/A

Molecular Formula: N/A

pH: 1.2

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Boiling Point and Boiling Range: N/A
Melting Point/Freezing Point: N/A
Flash Point: N/A
Specific Gravity/Relative Density: N/A
Odor: N/A
Odor Threshold: N/A
Color: Orange/Brown
Flammability (solid/gas): N/A
Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: Soluble in water
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity:

Chemical Stability: Stable

Conditions of Stability/Instability: Instable under excess heat or with incompatible materials.

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases. Chemically active metals. Reducing agents, acetic acid, methanol, glycerol, ethanol, diethyl ether, acetic anhydride, dimethyl form amide, acetone.

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire. Possible trivalent chromium formation with liberated oxygen.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Very acidic solution. Corrosive to eyes, may cause redness, pain and permanent corneal damage. Causes eye burns. May cause chemical conjunctivitis.

Skin: Very acidic solution. Corrosive to skin, may cause redness, pain and permanent tissue scarring. May cause skin sensitization and allergic reaction with repeat exposure. Substance is readily absorbed through the skin.

Inhalation: Dizziness, headache. Toxic fumes, may cause irritation to lungs. May cause damage to target organs after repeat exposure. May cause cancer with repeat exposure. Suspected to cause genetic mutations with repeat exposure. Suspect to be toxic to reproductive organs with repeat exposure. May cause asthmatic attacks due to allergic sensitization of the respiratory tract. Prolonged exposure to dusts, vapors or mists may result in the perforation of the nasal septum.

Ingestion: Harmful if swallowed. Very acidic solution. Corrosive to skin. May cause burns to mouth, throat and stomach. Will irritate gastrointestinal tract. Poison by ingestion. May cause liver and kidney damage. Exposure may cause anemia and other blood abnormalities. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood).

Signs or Symptoms of Exposure: May cause allergic respiratory and skin reaction. Target organs: blood, kidneys, liver, respiratory system, eyes, skin.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

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Acute Toxicity (Numerical Measures): Chromium Trioxide: LD50(oral,rat)=80 mg/kg, LD50(oral,mouse)=127 mg/kg

Carcinogenicity (NTP, IARC, OSHA): Contains Chromium VI Compounds IARC Group1 "Carcinogenic to humans" Cancer site: Lungs

12. Ecological Information

Ecotoxicity: Chromium Trioxide: Toxicity to fish: LC50-Tilapia mossambica-21.05-141.38mg/l-96.0h; LC50-Leuciscus idus(golden orfe)-100mg/l-48h Toxicity to daphnia and other aquatic invertebrates: EC50-Daphnia magna (water flea)-0.8mg/l-48h

Persistence and degradability:

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Mobility in the soil:

Adverse Environmental Effects:

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN1755

UN Proper Shipping Name: Chromic Acid Solution

Transport Hazard Class(es): 8

Packing Group Number: III

Environmental Hazards (IMDG code):

Marine Pollutant: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

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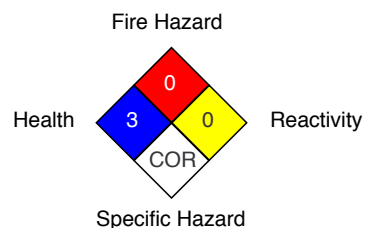
16. Other Information

Revision Date: 01/13/2015

NFPA

| | |
|-----------------|-----|
| Health | 3 |
| Fire Hazard | 0 |
| Reactivity | 0 |
| Specific Hazard | COR |

National Fire Protection Association (USA) NFPA



HMIS

| | |
|---------------------|---|
| Health | 3 |
| Flammability | 0 |
| Physical Hazard | 0 |
| Personal Protection | |

Hazardous Material Information System HMIS

| | |
|---------------------|---|
| Health | 3 |
| Flammability | 0 |
| Physical Hazard | 0 |
| Personal Protection | |

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