

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Chromic Acid Solution

SYNONYMS: None

PRODUCT CODES: Component of GMS Stain Kit-ES3397

MANUFACTURER: Azer Scientific, Inc.

ADDRESS: 701 Hemlock Rd, Morgantown, PA 19543

CHEMTREC PHONE: 800-424-9300

SUPPORT: 610-524-5810

FAX: 610-901-3046

PRODUCT USE: Laboratory reagent, Decalcification of bone

PREPARED BY: CB

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Germ Cell Mutagenicity Category 1; Carcinogenicity Category 1A; Reproductive Toxicity Category 2; Serious Eye Damage Category 1; Acute Toxicity-Dermal Category 3; Skin Sensitization Category 1; Acute Toxicity-Oral Category 3; Acute Toxicity- Inhalation Category 4; Respiratory Sensitization Category 1; Specific Organ Toxicity-repeated exposure Category 2; Hazardous to aquatic environment Long term/Chronic Category 1; Oxidizing liquids Category 3



Signal Word: Danger!

Hazard Phrases	
H318	Causes serious eye damage.
H350	May cause cancer.
H340	May cause genetic defects.
H332	Harmful if inhaled.
H301+H311	Toxic if swallowed or in contact with skin.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H272	May intensify fire. Oxidizer.

Precautionary Phrases	
P234	Keep in original container.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313	If skin irritation occurs: Get medical advice/attention.
P301+P310	IF SWALLOWED: Call a POISON CENTER or doctor/physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P310	If exposed or concerned: Immediately call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P273	Avoid release to the environment.

SECTION 2 NOTES:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
Chemical Description: Mixture

***May contain additional non-hazardous proprietary ingredients.**

****May contain additional active ingredients at concentrations <1% w/v**

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>% WT</u>
Chromium (VI) Oxide	1333-82-0	≤10

SECTION 3 NOTES:
SECTION 4: FIRST AID MEASURES

EYES: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

SKIN: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

INGESTION: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

SECTION 4 NOTES:
SECTION 5: FIRE-FIGHTING MEASURES
FLAMMABILITY OF THE PRODUCT:

FLASH POINT: Not available

AUTOIGNITION TEMPERATURE: Not available

NFPA HAZARD CLASSIFICATION

HEALTH:3 FLAMMABILITY: 0 REACTIVITY: 0
OTHER: OX

HMIS HAZARD CLASSIFICATION

HEALTH:3 FLAMMABILITY: 0 REACTIVITY: 0
PROTECTION: D

EXTINGUISHING MEDIA: Use dry chemical, CO₂, water spray (fog) or foam.

NOT SUITABLE: Do not use water jet.

SPECIAL FIRE FIGHTING PROCEDURES: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon dioxide

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Stop spill at the source if it is safe to do so. Neutralize spill with soda ash, or acid neutralizer. Absorb with an inert material. Collect into a suitable container for disposal.

Large spill and leak: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

STORAGE: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store at 15-30°C

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

RESPIRATORY PROTECTION: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn always when handling chemical products if a risk assessment indicates this is necessary. Recommended: Neoprene

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

EXPOSURE GUIDELINES:

Component	Source	Type	Value	Note
Chromium trioxide	ACGIH PEL	TLV	0.05 mg/m ³ (as Cr)	listed under Chromium (VI) compounds-water soluble
	NIOSH REL	TWA	0.001 mg/m ³ (as Cr)	
	NIOSH REL	IDLH	15 mg/m ³	As Cr (VI)

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Transparent red

ODOR: Odorless

PHYSICAL STATE: liquid

pH AS SUPPLIED: acidic

BOILING POINT: Not available

MELTING POINT: Not available

FREEZING POINT: Not available

VAPOR PRESSURE (mmHg): Not available

VAPOR DENSITY (AIR = 1): Not available

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Not available

MOLECULAR WEIGHT: Mixture

VISCOSITY: Not established

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of use.

CONDITIONS TO AVOID (STABILITY): Fire, static electricity, direct sunlight.

INCOMPATIBILITY (MATERIAL TO AVOID): Lithium, glycerol, oxidizing agents and any combustible reagents, reducing agents, acetic acid, Dimethyl formamide, acetone, methanol, ethanol, pyridine, camphor, turpentine

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Chromic oxides gas may form if decomposition occurs.

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Chromium trioxide CAS 1333-82-0

Oral LD50: Oral, mouse = 127 mg/kg; Oral, rat = 80 mg/kg

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: Irritating to skin and mucous membranes. Skin absorption may affect kidneys. Large amount may cause kidney failure.

Serious eye damage/eye irritation: Corrosive to eyes

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: CAS# 1333-82-0

International Agency for Research on Cancer (IARC) Listed

ACGIH: A1 - Confirmed human carcinogen (listed under Chromium (VI) compounds-water soluble)

California: carcinogen, initial date 2/27/87 (listed as 'chromium VI compounds')

National Toxicology Program (NTP)

Known carcinogen

Specific target organ toxicity - single exposure (Globally Harmonized System): Eyes, Kidney

Specific target organ toxicity - repeated exposure (Globally Harmonized System): No data available

Aspiration hazard: No data available

Potential health effects

Inhalation: Harmful if inhaled. Causes respiratory tract inflammation.

Ingestion: Toxic if swallowed.

Skin: Toxic if absorbed through skin. Causes skin irritation.

Eyes: Will burn eyes on contact.

ROUTES OF ENTRY: Skin/eye contact, inhalation, and ingestion.

TARGET ORGANS: Eyes, Kidney

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:

Fish: No relevant studies identified for mixture

Crustacea: No relevant studies identified for mixture.

Algae/Aquatic Plants: No relevant studies identified for mixture.

Other Organisms: No relevant studies identified.

PERSISTENCE AND DEGRADABILITY: No environmental fate/transport data available.

BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely.

MOBILITY IN SOIL: No data available

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: Not classified

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

UN No.	UN1755
Proper Shipping Name	Chromic Acid solution
Hazard Class	8
Packing Group	II

TDG

UN No.	UN1755
Proper Shipping Name	Chromic Acid solution
Hazard Class	8
Packing Group	II

IATA

UN No. UN1755
Proper Shipping Name Chromic Acid solution
Hazard Class 8
Packing Group II

IMDG/IMP

UN No. UN1755
Proper Shipping Name Chromic Acid solution
Hazard Class 8
Packing Group II
EMS-No: F-E, S-E

SECTION 15: REGULATORY INFORMATION

United States

HCS Classification: Toxic material, Irritating material, Target organ effects

U.S. Federal regulations:

United States inventory (TSCA 8b): Listed on inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/311/312/313 hazardous chemicals:

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Health: Acute, Chronic
Fire: Yes Reactivity: Yes

DEA List I & II Chemicals

(Precursor Chemicals): Not Listed

RTK STATES: Chromium trioxide. CAS 1333-82-0 MA, PA, NJ

California Prop. 65

Warning: This product does not contain a chemical known to the State of California to cause birth defects or other reproductive harm: Chromium trioxide. CAS 1333-82-0

CANADA

WHMIS (Canada): Chromic Acid, 10% w/v Class D-2A: Material causing other toxic effects.
Class E: Corrosive material.

Canadian lists:

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

SECTION 16: OTHER INFORMATION

National Fire Protection Association (U.S.A.)



DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Azer Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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