Safety Data Sheet

Dichromate Cleaning Solution

Revision Date: 08/22/19

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier Trade name: Dichromate
Product code(s): 3309-G

1.2 Relevant identified uses Laboratory Reagent

Supplier: Astral Diagnostics Inc.

800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/11/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview:

2.1 Classification of the substance or mixture

GHS-US Classification

Skin corrosion/irritation Category 1B, H314
Serious eye damage/eye irritation Category 1, H318

2.2 Label elements

GHS-US labeling

Hazard Pictograms:

Signal Word: Danger

Hazard Statements

H314: Causes severe skin burns and eye damage
H302+H322: Harmful if swallowed or inhaled
H311: Toxic in contact with skin
H317: May cause allergic skin reactions
H340: May cause genetic defects
H361: Suspected of damaging fertility or unborn child
H372: Causes damage to orangs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements

P260: Do not breathe mist, vapors, spray
P264: Wash hands, forearms and face thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P363: Wash contaminated clothing before reuse

P405: Store locked up

2.3 Other hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by volume
Water	7732-18-5	balance
Sulfuric Acid	7664-93-9	28
Chromic Acid	1333-82-0	~7.8 w/v

4. FIRST AID MEASURES

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: *Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.*

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream

5.2 Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for firefighters

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water form entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Gloves. Safety glasses. Combined gas/dust mask with filter type B/P3.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
Hygiene measures: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.
Storage conditions: Keep container closed when not in use. Protect from sunlight. Store in a well-ventilated place.
Incompatible products: metals, cyanides, strong bases, strong acids
Incompatible materials: Direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Component	Source	Type	Value	Note
Sulfuric Acid	ACGIH	TWA	0.2 mg/m3	
	OSHA	PEL	1 mg/m3	
	IDLH	US	15 ppm	
	NIOSH	REL (Ceiling)	1 mg/m3	
Chromic Acid	ACGIH	TWA	0.05 mg/m3	
	OSHA	PEL	0.005 mg/m3	
	IDLH	US	15 mg/m3	
	NIOSH	REL	0.001 mg/m3	

Personal protective equipment: Safety glasses. Gloves. Protective clothing. High gas/vapor concentration: gas mask with filter type B.
Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or face shield.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: Wear appropriate mask. Gas mask with filter type B.
Other information: Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.
Color: brown, amber
Flash Point: NA
Odor: None
pH: <0.5
Boiling/condensation point: NA
Melting/freezing point: NA
Relative density: NA
Vapor pressure: NA
Vapor density: NA
Odor threshold: NA
Evaporation rate: NA
VOC: NA
Solubility: Soluble in the following materials: water

10. STABILITY AND REACTIVITY

10.1. Reactivity

Thermal decomposition generates: corrosive vapors

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with some bases: releases heat

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Cyanides Strong bases. metals

10.6. Hazardous decomposition products

Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Water (7732-18-5)
LD50 oral rat ≥ 90000 mg/kg
ATE US (oral) 90000.000 mg/kg body weight

Sulfuric Acid (7664-93-9)
LD50 oral rat 2140 mg/kg
ATE US oral 2140 mg/kg body weight

Chromic Acid, ~10%
LD50 oral rat 500 mg/kg
LD50 dermal rat 500 mg/kg
LC50 inhalation rat 2.17 mg/l/4h

Skin corrosion/irritation: Causes severe skin burns and eye damage
Serious eye damage/irritation: Causes serious eye damage
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not Classified

12. ECOLOGICAL INFORMATION

Toxicity
Sulfuric Acid
LC50 fish 1: 42 mg/l 96h
LC50 Daphnia 1: 29 mg/l 24h

Toxicity
Chromic Acid
LC50 fish 1: 40 mg/l 96h
LC50 Daphnia 2: 0.01-2.5 mg/l 96h

Persistence and degradability:

Hydrochloric Acid	
Persistence and degradability	Not established
Biochemical Oxygen Demand	Not established
Chemical Oxygen Demand	Not established
ThOD	Not established

Bioaccumulative potential: no data available

Hydrochloric Acid	
BCF fish 1	Not established
Log Pow	-2.2
Bioaccumulative potential	Low potential
Chromic Acid	
BCF fish 1	4.6-72

Mobility in soil:

Hydrochloric Acid	
Surface Tension	Not established
Log Koc	Not established
	May be harmful to plant growth

PBT and vPvB assessment: no data available
Other adverse effects: avoid release to the environment

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)
UN-No. UN3264
Transportation hazard class(es): class 8
Packing group: II-medium danger
Proper shipping name: Corrosive Liquid, Acidic, Inorganic N.O.S

15. REGULATORY INFORMATION

15.1 US Federal Regulations

Sulfuric Acid
Listed on the US TSCA inventory. Not subject to reporting requirements of the United States SARA Section 311/312.
Immediate (acute) health hazard
RQ 1000lb

Chromic Acid
SARA Section 311/312 Hazard Classes: Acute toxicity, skin corrosion or irritation, serious eye damage, germ cell mutagenicity, reproductive toxicity
EPA TSCA Regulatory Flag- indicates a substance that is the subject of a Section 6 risk management rule under TSCA
RQ 10 lb

15.2 International Regulations (WHMIS Classifications)

No additional information available

15.3 California Proposition 65

 **WARNING:** This product can expose you to chemicals including Chromic Acid, which is known to the State of California to cause Cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

16. OTHER INFORMATION

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

Notice to reader

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling 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 Astral Diagnostics, Inc 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.