CASWELL INC

Safety Data Sheet
Black Chromate Part A

SECTION 1: Identification

1.1 Product identifier

Product name	Black Chromate Part A
Product number	A865-A

1.2 Other means of identification
Deep Red Brown Solution

1.3 Recommended use of the chemical and restrictions on use
Rust Preventative Coating For Zinc and Pot Metal

1.4 Supplier's details

Name	Caswell Inc	**PRODUCT SUPPLIED IN AUSTRALIA BY**
Address	7696 Route 31 Lyons, NY 14489 USA	CASWELL AUSTRALIA P/L 25 BIRCH COURT WYNDHAM VALE 3024 VICTORIA
Telephone	315 946 1213	
Fax	315 946 4456	PHONE 03 9741 7103
email	sales@caswellplating.com	EMERGENCY NUMBER **000**

1.5 Emergency phone number(s)

Office Hours (9-4ET): 315 946 1213
24 Hour: CHEMTEL US# 1-800-255-3924 Intl# +01-813-248-0585

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture
- Carcinogenicity (chapter 3.6), Cat. 1A
- Oxidizing liquids (chapter 2.13), Cat. 1
- Acute toxicity, inhalation (chapter 3.1), Cat. 2
- Acute toxicity, dermal (chapter 3.1), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 1A
- Toxic to reproduction (chapter 3.7), Cat. 2
- Sensitization, skin (chapter 3.4), Cat. 1
- Sensitization, respiratory (chapter 3.4), Cat. 1
- Germ cell mutagenicity (chapter 3.5), Cat. 1B

- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word **Danger**

Hazard statement(s)

H350	May cause cancer
H271	May cause fire or explosion; strong oxidizer
H310	Fatal in contact with skin
H330	Fatal if inhaled
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to …
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P220	Keep/Store away from clothing/…/combustible materials.
P221	Take any precaution to avoid mixing with combustibles/...
P283	Wear fire/flame resistant/retardant clothing.
P306+P360	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P371+P380+P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P370+P378	In case of fire: Use … to extinguish.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash … thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P310	Immediately call a POISON CENTER/doctor/...
P321	Specific treatment (see … on this label).
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P284	[In case of inadequate ventilation] wear respiratory protection.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P320	Specific treatment is urgent (see … on this label).
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P273	Avoid release to the environment.
P391	Collect spillage.

2.3 Other hazards which do not result in classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. CHROMIUM TRIOXIDE

Concentration	< 29 % (Volume)
Other names / synonyms	5CHROMIUM TRIOXIDE, ANHYDROUS; CHROMIC ACID; CHROMIC ACID, SOLID; CHROMIC ACID, SOLUTION; CHROMIC ANHYDRIDE; CHROMIC TRIOXIDE; CHROMIC VI ACID; CHROMIUM (6+) TRIOXIDE; chromium (VI) trioxide; CHROMIUM OXIDE; Chromium oxide (CrO3); Chromium oxide [CrO3]; CHROMIUM VI OXIDE; CHROMIUMTRIOXIDE; MONOCHROMIUM OXIDE; MONOCHROMIUM TRIOXIDE; PURATRONIC
EC no.	215-607-8
CAS no.	1333-82-0
Index no.	024-001-00-0

- Oxidizing solids (chapter 2.14), Cat. 1
- Carcinogenicity (chapter 3.6), Cat. 1A
- Germ cell mutagenicity (chapter 3.5), Cat. 1B
- Toxic to reproduction (chapter 3.7), Cat. 2
- Acute toxicity (chapter 3.1), Cat. 2
- Acute toxicity (chapter 3.1), Cat. 3
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 1
- Skin corrosion/irritation (chapter 3.2), Cat. 1A
- Sensitization, respiratory (chapter 3.4), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1

- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

H271	May cause fire or explosion; strong oxidizer
H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H350	May cause cancer
H361f	Suspected of damaging fertility
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

2. Sulfuric acid (90-98 %)

Concentration	< 15 % (Volume)
Other names / synonyms	Sulfuric acid; SULFURICACID; sulphuric acid ... %
EC no.	231-639-5
CAS no.	7664-93-9
Index no.	016-020-00-8

- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H314	Causes severe skin burns and eye damage

3. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration	56 % (Volume)
CAS no.	7732-18-5

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Avoid all contact. Read this SDS completely before use. Wear protective gear. Use extreme caution when handling.
If inhaled	Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention
In case of skin contact	Immediately flush skin with lots of running water for 15 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get immediate medical attention.
In case of eye contact	Immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower eye lids occasionally. Get immediate medical attention.

If swallowed	Have patient drink several glasses of water and then induce vomiting. Never give anything to an unconscious person. Contact physician immediately

4.2 Most important symptoms/effects, acute and delayed
May cause severe irritation to eyes (conjunctivitis) and respiratory tract, nasal septum and possible perforation. Ingestion may result in kidney failure and death. Prolonged or repeated skin contact, especially with broken skin may cause “chrome sores”.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Water or dry chemical as appropriate for combustibles in area

5.2 Specific hazards arising from the chemical
Oxidizer. Avoid contact with organic materials.

5.3 Special protective actions for fire-fighters
Fire fighters should wear self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear acid resistant gloves, rubber boots, respirator (NIOSH approved) and eye protection. For small spills, mop or wipe up and dispose of in DOT approved waste container. For large spills contain by soil or absorbent material. Treat spill area with a reducing agent to convert hexavalent chrome to trivalent chrome. Neutralize with a weak base. Keep non-neutralized material out of sewers and surface waters. Comply with regulations for spill reporting.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep in a closed container in a dry well-ventilated area away from incompatible materials. Wash thoroughly after handling. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings on containers as if they were full.

7.2 Conditions for safe storage, including any incompatibilities
Avoid Strong bases, cyanides, and zinc

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Sulfuric acid (CAS: 7664-93-9)
PEL (Inhalation): 1 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

2. Sulfuric acid (CAS: 7664-93-9)
PEL (Inhalation): 0.1 mg/m3, (ST) 3 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Sulfuric acid (CAS: 7664-93-9)
REL (Inhalation): 1 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

4. CHROMIUM TRIOXIDE (CAS: 1333-82-0)
REL-TWA (Inhalation): 0.001 mg/m3 (NIOSH)

5. CHROMIUM TRIOXIDE (CAS: 1333-82-0)
TLV® (Inhalation): 0.05 mg/m3 (ACGIH)

6. CHROMIUM TRIOXIDE (CAS: 1333-82-0)
STEL (Inhalation): 0.1 mg/m3 (OSHA)

8.2 Appropriate engineering controls
Use with adequate ventilation.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	Red/Brown Liquid
Odor	Characteristic
Odor threshold	
pH	1
Melting point/freezing point	
Initial boiling point and boiling range	220 deg F
Flash point	
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	

Upper/lower explosive limits	
Vapor pressure	
Vapor density	1
Relative density	1.28
Solubility(ies)	Complete In Water
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

10.2 Chemical stability
Stable

10.5 Incompatible materials
Strong bases, cyanides, and zinc.

10.6 Hazardous decomposition products
Thermal decomposition liberates toxic, corrosive fumes. Also may liberate carbon monoxide, carbon dioxide and oxides of sulfur.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Skin: LD50 Rabbit 57 mg/kg (Chromic Acid)
Eyes: Not Available
Respiratory: LC50 - Rat - 21.7 mg/kg (Chromic Acid)
Ingestion: LD50 - Rat - 80 mg/kg (Chromic Acid)

Skin corrosion/irritation
Irritating and corrosive to skin.

Serious eye damage/irritation
Risk of serious damage to eyes.

Carcinogenicity
IARC Group 1
ACGIH: A1 Confirmed for human

Reproductive toxicity
May alter genetic material. Adverse reproductive effects.

STOT-single exposure
Kidneys, Liver, Gastrointestinal Tract, Upper Respiratory Tract, Skin, Eyes

SECTION 12: Ecological information

Toxicity
Aquatic Vertebrate:
LC50 21-141 mg/L - 96h
Aquatic Invertabrate:
EC50 - 0.8 mg/L - 48h

Other adverse effects
Very toxic to aquatic life

SECTION 13: Disposal considerations

Disposal of the product
Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Disposal of contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

DOT (US)
UN Number: UN1760
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive liquids, nos (Chromic Acid, Sulfuric Acid)
Reportable quantity (RQ): 34#
Marine pollutant: Yes
Poison inhalation hazard:
Quantities under 1L may be shipped as LTD QTY

IMDG
UN Number: UN1760
Class: 8
Packing Group: II
EMS Number:
Proper Shipping Name: Corrosive liquids, nos (Chromic Acid, Sulfuric Acid)

IATA
UN Number: UN1760
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive liquids, nos (Chromic Acid, Sulfuric Acid)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

New Jersey Right To Know Components

Common name: CHROMIC TRIOXIDE
CAS number: 1333-82-0

Pennsylvania Right To Know Components
Chemical name: Chromium oxide
CAS number: 1333-82-0

California Prop. 65 components
Chemical name: CHROMIUM TRIOXIDE
CAS number: 1333-82-0
02/27/1987 - Cancer
12/19/2008 - Developmental, female, male

Massachusetts Right To Know Components
Chemical name: Sulfuric acid
CAS number: 7664-93-9

New Jersey Right To Know Components
Common name: SULFURIC ACID
CAS number: 7664-93-9

Pennsylvania Right To Know Components
Chemical name: Sulfuric acid
CAS number: 7664-93-9

California Prop. 65 components
Chemical name: Sulfuric acid (90-98 %)
CAS number: 7664-93-9
03/14/2003 - Cancer

HMIS Rating

Black Chromate Part A	
HEALTH	* 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

NFPA Rating

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Caswell 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, whatsoever arising, even if Caswell Inc has been advised of the possibility of such damages.