

Safety Data Sheet Aluminum Blackener

SECTION 1: Identification

1.1 Product identifier

Product name	Aluminum Blackener
Product number	A385
Brand	CASWELL

1.3 Recommended use of the chemical and restrictions on use

Metal Blackening of Aluminum

1.4 Supplier's details

Name	Caswell Inc
Address	7696 Route 31 Lyons, NY 14489 USA
Telephone	315 946 1213
Fax	315 946 4456
email	sales@caswellplating.com

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
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 3
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

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Hazard statement(s)

H350	May cause cancer
H412	Harmful to aquatic life with long lasting effects
H402	Harmful to aquatic life

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor/...
P321	Specific treatment (see info on this label).
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P405	Store locked up.
P501	Dispose of contents/container per local regulations
P270	Do not eat, drink or smoke when using this product.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P330	Rinse mouth.
P273	Avoid release to the environment.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P308+P313	IF exposed or concerned: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. WATER

Concentration	85 - 95 %
CAS no.	7732-18-5

2. Ammonium dimolybdate

Concentration	3 %
CAS no.	27546-07-2

3. SELENIOUS ACID

Concentration	1 - 4 %
CAS no.	7783-00-8

4. COPPER SULFATE PENTAHYDRATE

Concentration	3 %
CAS no.	7758-99-8

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5. Sulfuric acid (<10%)

Concentration	3 %
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

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Substance can cause cancer.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Personal protective equipment for first-aid responders	See section 8

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

May produce toxic selenious fumes. Reactions with organics and strong reducing agents can produce volatile organoselenides or hydrogen selenide.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

SMALL SPILLS: Contain and absorb with absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Ammonium dimolybdate (CAS: 27546-07-2)

(Inhalation): 0.5mg/m³ (ACGIH)

2. SELENIOS ACID (CAS: 7783-00-8)

(Inhalation): 0.2mg/m³ (ACGIH)

3. Sulfuric acid (<10%) (CAS: 7664-93-9 EC: 231-639-5)

(Inhalation): 0.2mg/m³ (ACGIH)

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

Pictograms



Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear chemical resistant gloves and clothing.

Respiratory protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Blue Liquid
Odor	Odorless
Odor threshold	Not Available
pH	0-2.85
Melting point/freezing point	32 deg F
Initial boiling point and boiling range	212 deg F
Flash point	Not Available
Evaporation rate	1
Flammability (solid, gas)	Not Available
Upper/lower flammability limits	Not Available
Vapor pressure	20
Vapor density	Approx equal to water
Relative density	1.05-1.068
Solubility(ies)	Soluble In Water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Explosive properties	Not Available

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Oxidizing properties

Not Available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not Reactive

10.2 Chemical stability

Stable

10.4 Conditions to avoid

Extreme Heat

10.5 Incompatible materials

Cyanides, organic solvents, strong reducing agents

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Water(7732-18-5)Oral LD50Rat>90 mL/kg

Copper(II) sulfate, pentahydrate (1:1:5)(7758-99-8)Oral LD50Rat960 mg/kgDermal LD50Rabbit1000 mg/kg (related toSulfuric acid, copper(2+) salt (1:1))

Sulfuric acid(7664-93-9)Oral LD50Rat2140 mg/kgInhalation LC50Rat510 mg/m3 2 h

Carcinogenicity

Molybdate Diammonium: A3 - Confirmed animal with unknown relevance to Humans

SECTION 12: Ecological information

Toxicity

Copper(II) sulfate, pentahydrate (1:1:5)7758-99-8

Fish:LC50 96 h Lepomis macrochirus 0.66 -1.15 mg/L [semi-static];LC50 96 h

Lepomis macrochirus 0.96 -1.8 mg/L [static]; LC50 96 h

Oncorhynchus mykiss 0.1478 -0.165 mg/L [flow-through]; LC50 96 h

Oncorhynchus mykiss 0.09 -0.19 mg/L [static]; LC50 96 h

Pimephales promelas 0.6752 mg/L [static]

Invertebrate:EC50 48 h Daphnia magna0.147 -0.227 mg/L [static] EPA

Sulfuric acid7664-93-9

Fish:LC50 96 h Brachydanio rerio >500 mg/L [static]

SECTION 13: Disposal considerations

Disposal of the product

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

SECTION 14: Transport information

DOT (US)

UN Number: UN1760

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Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, NOS (Sulfuric Acid, Selenious Acid)

Reportable quantity (RQ): 335 lbs

Small quantities may be shipped as Limited Quantities. Consult 49 CFR.

IMDG

UN Number:

Class:

Packing Group:

EMS Number:

Proper Shipping Name:

IATA

UN Number: UN1760

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, NOS (Sulfuric Acid, Selenious Acid)

SECTION 15: Regulatory information

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

Massachusetts Right To Know Components

Chemical name: Selenious acid

CAS number: 7783-00-8

New Jersey Right To Know Components

Common name: SELENOUS ACID

CAS number: 7783-00-8

Pennsylvania Right To Know Components

Chemical name: Selenous acid

CAS number: 7783-00-8

Massachusetts Right To Know Components

Chemical name: Copper

CAS number: 7440-50-8

New Jersey Right To Know Components

Common name: COPPER

CAS number: 7440-50-8

Pennsylvania Right To Know Components

Chemical name: Copper

CAS number: 7440-50-8

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

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Chemical name: Sulfuric acid (<10%)

CAS number: 7664-93-9

03/14/2003 - Cancer

HMIS Rating

Aluminum Blackener	
HEALTH	* 2
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.

16.2 Preparation information

L CASWELL