CASWELL INC

Safety Data Sheet
BLACK OXIDE CONCENTRATE

SECTION 1: Identification

1.1 Product identifier

Product name	BLACK OXIDE CONCENTRATE
Product number	BOCONC
Brand	CASWELL

1.2 Other means of identification
Blue liquid

1.3 Recommended use of the chemical and restrictions on use
Metal Blackening of Steel & Iron

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
- Skin corrosion/irritation (chapter 3.2), Cat. 1A
- Eye damage/irritation (chapter 3.3), Cat. 1
- Acute toxicity, oral (chapter 3.1), Cat. 3
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 3
- Germ cell mutagenicity (chapter 3.5), Cat. 1B

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word	**Danger**

Hazard statement(s)

H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H301	Toxic if swallowed
EUH401	To avoid risks to human health and the environment, comply with the instructions for use
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects
H340	May cause genetic defects

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.

2.3 Other hazards which do not result in classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Phosphoric acid liquid

Concentration	2 - 2 % (Weight)
Other names / synonyms	o-Phosphoric Acid; Phosphoric acid; phosphoric acid ... %, orthophosphoric acid ... %; Phosphoric acid, 85%; PHOSPHORICACID
EC no.	231-633-2

CAS no.	7664-38-2
Index no.	015-011-00-6

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

H314	Causes severe skin burns and eye damage

2. SELENIOUS ACID

Concentration	< 3.5 % (Weight)
Other names / synonyms	MONOHYDRATED SELENUIM DIOXIDE; SELENIOUSACID; SELENOUS ACID
CAS no.	7783-00-8

3. Copper powder

Concentration	< 3 % (Weight)
Other names / synonyms	COPPER;
CAS no.	7440-50-8

4. Nitric acid (<40%)

Concentration	< 2 % (Weight)
Other names / synonyms	Nitric acid; nitric acid … %; NITRICACID
EC no.	231-714-2
CAS no.	7697-37-2
Index no.	007-004-00-1

- Oxidizing liquids (chapter 2.13), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H272	May intensify fire; oxidizer
H314	Causes severe skin burns and eye damage

5. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration	89.5 % (Weight)
CAS no.	7732-18-5

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Substance can cause severe skin, eye and respiratory tract irritation/nurning. Corrosive. Will cause eye burns and permanent tissue damage.
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.

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Phosphoric acid (CAS: 7664-38-2)
PEL (Inhalation): 1 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

2. Phosphoric acid (CAS: 7664-38-2)
PEL (Inhalation): 1 mg/m3, (ST) 3 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Phosphoric acid (CAS: 7664-38-2)
REL (Inhalation): 1 mg/m3, (ST) 3 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

4. Copper, Fume (as Cu) (CAS: 7440-50-8)
PEL (Inhalation): 0.1 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

5. Copper, Fume (as Cu) (CAS: 7440-50-8)
PEL (Inhalation): 0.1 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

6. Copper, Fume (as Cu) (CAS: 7440-50-8)
REL (Inhalation): 0.1 mg/m3 (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

7. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)
PEL (Inhalation): 1 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

8. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)
PEL (Inhalation): 1 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

9. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)
REL (Inhalation): 1 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

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

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 cartidge or canister may be permissable 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	Blue Liquid
Odor	
Odor threshold	
pH	0.72
Melting point/freezing point	
Initial boiling point and boiling range	212 deg F
Flash point	
Evaporation rate	1
Flammability (solid, gas)	
Upper/lower flammability limits	
Upper/lower explosive limits	
Vapor pressure	20
Vapor density	Approx equal to water
Relative density	1.049
Solubility(ies)	Soluble 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
Cyanides, organic solvents, strong reducing agents

SECTION 11: Toxicological information

Information on toxicological effects

Carcinogenicity
Phosporic Acid is suspected of causing cancer

SECTION 12: Ecological information

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
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive Liquid, NOS (Phosphoric 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 (Phosphoric 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: Phosphoric acid
CAS number: 7664-38-2

New Jersey Right To Know Components
Common name: PHOSPHORIC ACID

CAS number: 7664-38-2

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: Nitric acid
CAS number: 7697-37-2

New Jersey Right To Know Components
Common name: NITRIC ACID
CAS number: 7697-37-2

Pennsylvania Right To Know Components
Chemical name: Nitric acid
CAS number: 7697-37-2

WARNING! This product contains a chemical known to the State of California to cause cancer.
Chemical Name: Phosphoric Acid

HMIS Rating

BLACK OXIDE CONCENTRATE	
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

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