

Safety Data Sheet
BLACK OXIDE CONCENTRATE



CASWELL Australia

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 USA 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

Supplied in Australia by	Caswell Australia 25 Birch Court Wyndham Vale 3024 Victoria
email	sales@caswellplating.com.au
Telephone	03 9741 7103

1.5 Emergency phone number(s) USA

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

1.6 Emergency phone number(s) AUSTRALIA

Telephone	03 9741 7103
24 hour	0427 70 80 90
Emergency	000

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SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

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

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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 SELENIUM 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

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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/irritation. 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

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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 cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

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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	100 deg C
Flash point	Not Applicable
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

Phosphoric 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.

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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.

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: Selenious 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

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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

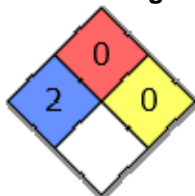
WARNING! This product contains a chemical known to the State of California to cause cancer.

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

P DAVIES