



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

- Eye damage/irritation (chapter 3.3), Cat. 1
- Carcinogenicity (chapter 3.6), Cat. 1A
- Skin corrosion/irritation (chapter 3.2), Cat. 1
- Specific target organ toxicity following repeated exposure (chapter 3.9), Cat. 2

2.2 GHS label elements, including precautionary statements

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Pictogram



Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H350 May cause cancer [route]
H373 May cause damage to organs [organs] through prolonged or repeated exposure [route]

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.
P314 Get medical advice/attention if you feel unwell.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration 85 - 95 % (weight)
CAS no. 7732-18-5

2. SELENIOUS ACID

Concentration 1 - < 4 % (weight)
CAS no. 7783-00-8

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3. Phosphoric acid liquid

Concentration	1 - 3 % (weight)
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

4. Copper (II) sulfate

Concentration	1 - 4 % (weight)
EC no.	231-847-6
CAS no.	7758-98-7
Index no.	029-004-00-0

- Acute toxicity (chapter 3.1), Cat. 4

- Serious eye damage/eye irritation (chapter 3.3), Cat. 2

- Skin corrosion/irritation (chapter 3.2), Cat. 2

- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1

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

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

5. Nitric acid (<40%)

Concentration	0.1 - < 1.5 % (weight)
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

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.

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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

PEL (Inhalation): 1 mg/m³, (ST) 3 mg/m³ (Cal/OSHA)

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

REL (Inhalation): 1 mg/m³, (ST) 3 mg/m³ (NIOSH)

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

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

PEL-TWA (Inhalation): 0.2 mg/m³ Se (OSHA)

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

Pictograms



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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	
Odor threshold	
pH	0.72
Melting point/freezing point	
Initial boiling point and boiling range	228 deg F
Flash point	
Evaporation rate	1
Flammability (solid, gas)	
Upper/lower flammability 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	

Other safety information

VOC Content (%) 0

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

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 3,168.90 mg/kg

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ATEmix (dermal) 96,467.50 mg/kg
ATEmix (inhalation-dust/mist) 7.98 mg/l

Carcinogenicity

Selenous acid Group 3

Nitric Acid Group 2A

SECTION 12: Ecological information

Toxicity

Sulfuric acid, copper(2+)

salt (1:1)

7758-98-7

LC50: =0.1mg/L (96h,
Oncorhynchus mykiss)

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: UN3264

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, acidic, inorganic, NOS (Phosphoric Acid, Nitric 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: UN3264

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, acidic, inorganic, NOS (Phosphoric Acid, Nitric 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

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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: 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

TSCA

All Ingredients are listed

Massachusetts Right To Know Components

Chemical name: Cupric sulfate

CAS number: 7758-98-7

New Jersey Right To Know Components

Common name: CUPRIC SULFATE

CAS number: 7758-98-7

Pennsylvania Right To Know Components

Chemical name: Sulfuric acid copper(2+) salt (1:1)

CAS number: 7758-98-7

HMIS Rating

BLACK OXIDE CONCENTRATE	
HEALTH	* 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

NFPA Rating



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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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