



**CASWELL INC**

## **Safety Data Sheet**

### **BLACK OXIDE CONCENTRATE**

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#### **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

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#### **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**

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE



### 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

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE

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/burning. 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.

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE

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.

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### 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.

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### 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.

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### 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. Phosphoric acid (CAS: 7664-38-2)

PEL (Inhalation): 1 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

##### 2. Phosphoric acid (CAS: 7664-38-2)

PEL (Inhalation): 1 mg/m<sup>3</sup>, (ST) 3 mg/m<sup>3</sup> (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

##### 3. Phosphoric acid (CAS: 7664-38-2)

REL (Inhalation): 1 mg/m<sup>3</sup>, (ST) 3 mg/m<sup>3</sup> (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

##### 4. Copper, Fume (as Cu) (CAS: 7440-50-8)

PEL (Inhalation): 0.1 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

##### 5. Copper, Fume (as Cu) (CAS: 7440-50-8)

PEL (Inhalation): 0.1 mg/m<sup>3</sup> (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

##### 6. Copper, Fume (as Cu) (CAS: 7440-50-8)

REL (Inhalation): 0.1 mg/m<sup>3</sup> (NIOSH)

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### 7. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)

PEL (Inhalation): 1 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### 8. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)

PEL (Inhalation): 1 mg/m<sup>3</sup> (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### 9. Copper, Dusts and mists (as Cu) (CAS: 7440-50-8)

REL (Inhalation): 1 mg/m<sup>3</sup> (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://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	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	

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## SECTION 10: Stability and reactivity

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE

### 10.2 Chemical stability

Stable

### 10.5 Incompatible materials

Cyanides, organic solvents, strong reducing agents

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Carcinogenicity

Phosphoric Acid is suspected of causing cancer

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## SECTION 12: Ecological information

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## 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.

### 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)

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## 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

# Safety Data Sheet

## BLACK OXIDE CONCENTRATE

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

**Safety Data Sheet**  
**BLACK OXIDE CONCENTRATE**



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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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## **Safety Data Sheet Penetrating Sealer**

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### **SECTION 1: Identification**

#### **1.1 Product identifier**

Product name	Penetrating Sealer
Product number	PSEAL
Brand	Caswell

#### **1.2 Other means of identification**

Brown liquid with petroleum smell.

#### **1.3 Recommended use of the chemical and restrictions on use**

Moisture displacing metal sealer.

#### **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

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### **SECTION 2: Hazard identification**

#### **2.1 Classification of the substance or mixture**

- Flammable liquids (chapter 2.6), Cat. 3
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 2

#### **2.2 GHS label elements, including precautionary statements**

**Pictogram**

# Safety Data Sheet

## Penetrating Sealer



### Hazard statement(s)

H227	Combustible liquid
H226	Flammable liquid and vapor
H412	Harmful to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

### Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378	In case of fire: Use ... to extinguish.
P403+P235	Store in a well ventilated place. Keep cool.
P501	Dispose of contents/container to ...
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P273	Avoid release to the environment.
P391	Collect spillage.

### 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. Stoddard solvent

Concentration	< 79 %
CAS no.	8052-41-3

##### 2. White mineral oil, petroleum

Concentration	< 8 %
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Other names / synonyms	Mineral oil; White mineral oil (petroleum);
CAS no.	8042-47-5

##### 3. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration	< 13 %
CAS no.	7732-18-5

## **SECTION 4: First-aid measures**

### **4.1 Description of necessary first-aid measures**

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Aspiration hazard. If inhaled, vomiting may occur spontaneously, but do not induce. In vomiting occurs, keep head below hips to prevent aspiration. Contact a physician.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Personal protective equipment for first-aid responders	See section 8

### **4.2 Most important symptoms/effects, acute and delayed**

May cause irritation to eyes, skin and respiratory system. Direct contact may cause stinging, tearing and redness of eyes. May cause irritation of the eyes, nose and throat and signs of central nervous depression (eg fatigue). Pre-existing lung disorders may be aggravated.

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## **SECTION 5: Fire-fighting measures**

### **5.1 Suitable extinguishing media**

Dry chemical, CO<sub>2</sub> or universal type foam.

### **5.2 Specific hazards arising from the chemical**

Material will burn, but not ignite readily.

### **5.3 Special protective actions for fire-fighters**

Wear self-contained breathing apparatus for firefighting if necessary.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from all sources of ignition. See section 8 for PPE. Ventilate area of spill.

### **6.2 Environmental precautions**

Do not allow to enter water source.

### **6.3 Methods and materials for containment and cleaning up**

# Safety Data Sheet

## Penetrating Sealer

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.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Keep container tightly closed in a dry and well-ventilated place.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep away from sources of ignition. Empty containers that contain fumes can be dangerous. Do not cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks or other sources of ignition.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**1. Stoddard solvent (CAS: 8052-41-3)**

PEL-TWA: 100ppm (OSHA)

**2. Stoddard solvent (CAS: 8052-41-3)**

TLV@: 100ppm (ACGIH)

**3. White mineral oil, petroleum (CAS: 8042-47-5)**

TLV@: 5ppm (ACGIH)

#### 8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### 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

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### 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

# Safety Data Sheet

## Penetrating Sealer

### Information on basic physical and chemical properties

Appearance/form	Amber Liquid
Odor	Characteristic
Odor threshold	
pH	Not Available
Melting point/freezing point	
Initial boiling point and boiling range	350-450 degF
Flash point	126 deg F
Evaporation rate	0.13 (n-Butyl Acetate=1)
Flammability (solid, gas)	
Upper/lower flammability limits	
Upper/lower explosive limits	
Vapor pressure	33.333
Vapor density	1.2 (Air=1)
Relative density	0.79
Solubility(ies)	Negligible
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not reactive

### 10.2 Chemical stability

Stable

### 10.5 Incompatible materials

Oxidizing Agents, Strong Acids, Strong Bases

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Skin corrosion/irritation

May cause irritation

#### Serious eye damage/irritation

May cause irritation

#### Respiratory or skin sensitization

May cause irritation

#### Carcinogenicity

# Safety Data Sheet

## Penetrating Sealer

Not a carcinogen

### Aspiration hazard

If inhaled, may be aspirated into lungs where it may cause lung damage

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## SECTION 12: Ecological information

### Toxicity

Not established, but as a petroleum based product, it will cause damage to aquatic organisms.

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## 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

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: Not A Dangerous Good for Ground Transport

Class:

Packing Group:

Proper Shipping Name: Combustible Material

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

### IMDG

UN Number: UN1268

Class: 3

Packing Group: III

EMS Number:

Proper Shipping Name: Petroleum Distillates, NOS

### IATA

UN Number: UN1268

Class: 3

Packing Group: III

Proper Shipping Name: Petroleum Distillates, NOS

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## 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: STODDARD SOLVENT

CAS number: 8052-41-3

# Safety Data Sheet

## Penetrating Sealer

### Pennsylvania Right To Know Components

Chemical name: Stoddard solvent

CAS number: 8052-41-3

### HMIS Rating

Penetrating Sealer	
HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

### NFPA Rating



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## SECTION 16: Other information

### 16.1 Further information/disclaimer

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