

**Safety Data Sheet**  
**Brass Electroplating Solution**

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**SECTION 1: Identification**

**1.1 Product identifier**

Product name	Brass Electroplating Solution
Product number	BRSA1Q
Brand	CASWELL

**1.3 Recommended use of the chemical and restrictions on use**  
Alkaline Brass Electroplating Solution

**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. 3

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

**Pictogram**



**Signal word**

**Warning**

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## Brass Electroplating Solution

### Hazard statement(s)

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
EUH401	To avoid risks to human health and the environment, comply with the instructions for use

### Precautionary statement(s)

P332+P313	If skin irritation occurs: Get medical advice/attention.
P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
P103	Read label before use.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.
P402+P404	Store in a dry place. Store in a closed container.

### 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. POTASSIUM HYDROXIDE liquid

Concentration < 5 %

Other names / synonyms CAUSTIC POTASH; LYE; POTASSA; POTASSIUM HYDRATE; potassium hydroxide; Potassium hydroxide (K(OH)); POTASSIUM HYDROXIDE solution; POTASSIUMHYDROXIDE; UN 1813; UN 1814

EC no. 215-181-3

CAS no. 1310-58-3

Index no. 019-002-00-8

- Acute toxicity (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage

##### 2. Copper powder

Concentration < 1 %

Other names / synonyms COPPER;

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## Brass Electroplating Solution

CAS no.	7440-50-8
<b>3.0</b> Concentration	95 %
Other names / synonyms	WATER OR OTHER NON-HAZARDOUS OR REPORTABLE MATERIALS

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### SECTION 4: First-aid measures

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

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. Get medical attention if symptoms occur.
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.

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### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Dry chemical, foam, carbon dioxide, water fog.

#### 5.2 Specific hazards arising from the chemical

Contact with some metals, particularly magnesium, aluminum and zinc (galvanized) can rapidly generate hydrogen, which can be explosive.

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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.

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### SECTION 8: Exposure controls/personal protection

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## Brass Electroplating Solution

### 8.1 Control parameters

#### 1. 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)

#### 2. 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)

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

REL (Inhalation): 0.1 mg/m<sup>3</sup> (NIOSH)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 4. 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)

#### 5. 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)

#### 6. 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

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

Wear chemical resistant gloves and clothing.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form	Hazy Blue Liquid
Odor	Mild Musty
Odor threshold	
pH	13-13.5
Melting point/freezing point	
Initial boiling point and boiling range	220 deg F
Flash point	None
Evaporation rate	

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## Brass Electroplating Solution

Flammability (solid, gas)  
Upper/lower flammability limits  
Upper/lower explosive limits  
Vapor pressure  
Vapor density  
Relative density 1.19  
Solubility(ies) Complete 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

#### 10.2 Chemical stability

Material is Stable

#### 10.3 Possibility of hazardous reactions

None

#### 10.4 Conditions to avoid

None

#### 10.5 Incompatible materials

Strong Acids

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

Not established

##### Carcinogenicity

None

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### SECTION 12: Ecological information

#### Toxicity

Not established

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### SECTION 13: Disposal considerations

#### Disposal of the product

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

## Safety Data Sheet

### Brass Electroplating Solution

pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

#### **Disposal of contaminated packaging**

Dispose of as unused product.

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## SECTION 14: Transport information

#### **DOT (US)**

UN Number: UN1760

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive liquid, NOS (Potassium Hydroxide)

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

Small Quantities may be shipped as LTD QTY.

#### **IMDG**

UN Number: UN1760

Class: 8

Packing Group: II

EMS Number:

Proper Shipping Name: Corrosive liquid, NOS (Potassium Hydroxide)

#### **IATA**

UN Number: UN1760

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive liquid, NOS (Potassium Hydroxide)

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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: Potassium hydroxide

CAS number: 1310-58-3

#### **New Jersey Right To Know Components**

Common name: POTASSIUM HYDROXIDE

CAS number: 1310-58-3

#### **Pennsylvania Right To Know Components**

Chemical name: Potassium hydroxide

CAS number: 1310-58-3

#### **Massachusetts Right To Know Components**

Chemical name: Copper

CAS number: 7440-50-8

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## Brass Electroplating Solution

### New Jersey Right To Know Components

Common name: COPPER

CAS number: 7440-50-8

### Pennsylvania Right To Know Components

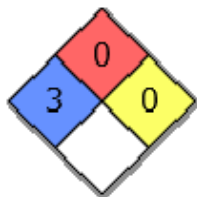
Chemical name: Copper

CAS number: 7440-50-8

### HMIS Rating

Brass Electroplating Solution	
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

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**CASWELL INC**

## **Safety Data Sheet Brass Plating Solution Part B**

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### **SECTION 1: Identification**

#### **1.1 Product identifier**

Product name	Brass Plating Solution Part B
Product number	BRSB
Brand	Caswell

#### **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**

Not a hazardous substance or mixture.

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

Not a hazardous substance or mixture.

#### **2.3 Other hazards which do not result in classification**

Not a hazardous substance or mixture.

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### **SECTION 3: Composition/information on ingredients**



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## Brass Plating Solution Part B

### 3.1 Substances

#### Hazardous components

##### 1. WATER

Concentration 99 - 99.5 %

CAS no. 7732-18-5

##### 2. DIPROPYLENE GLYCOL

Concentration 0.02 - 0.03 %

CAS no. 25265-71-8

#### Trade secret statement (OSHA 1910.1200(i))

Specific chemical names and formulas have been omitted as a trade secret under OSHA 1910.1200.

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice	Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention
If inhaled	Assure fresh air breathing. Allow the victim to rest.
In case of skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
In case of eye contact	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
If swallowed	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
Personal protective equipment for first-aid responders	na

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

na

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

na

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Any available

### 5.2 Specific hazards arising from the chemical

na

### 5.3 Special protective actions for fire-fighters

na

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## SECTION 6: Accidental release measures

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## Brass Plating Solution Part B

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

Use chemically protective clothing.

### 6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Dike and contain the spill with sand.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

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

Keep only in the original container in a cool, well ventilated place away from : incompatible materials. Keep container closed when not in use. Incompatible products: Oxidizing agent. Strong acids.

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## SECTION 8: Exposure controls/personal protection

### 8.2 Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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

#### Pictograms



#### Eye/face protection

Chemical goggles or safety glasses.

#### Skin protection

Wear protective gloves.

#### Body protection

na

#### Respiratory protection

na

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Colorless liquid
Odor	Odorless
Odor threshold	na

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## Brass Plating Solution Part B

pH	3.5-4.5
Melting point/freezing point	32 deg F
Initial boiling point and boiling range	212 deg F
Flash point	na
Evaporation rate	na
Flammability (solid, gas)	na
Upper/lower flammability limits	na
Upper/lower explosive limits	na
Vapor pressure	na
Vapor density	na
Relative density	1-1.02
Solubility(ies)	na
Partition coefficient: n-octanol/water	na
Auto-ignition temperature	na
Decomposition temperature	na
Viscosity	na
Explosive properties	na
Oxidizing properties	na

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

None

#### 10.2 Chemical stability

Not Established

#### 10.3 Possibility of hazardous reactions

Not Established

#### 10.4 Conditions to avoid

na

#### 10.5 Incompatible materials

na

#### 10.6 Hazardous decomposition products

None

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

LD50 oral rat 14850 mg/kg

##### Skin corrosion/irritation

Not Classified

##### Serious eye damage/irritation

Not Classified

##### Respiratory or skin sensitization

Not Classified

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## Brass Plating Solution Part B

### Germ cell mutagenicity

Not classified

### Carcinogenicity

Not classified

### Reproductive toxicity

na

### STOT-single exposure

Not classified

### STOT-repeated exposure

Not classified

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## SECTION 12: Ecological information

### Other adverse effects

Avoid release to the environment.

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## SECTION 13: Disposal considerations

### Disposal of the product

Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

### Waste treatment

Avoid release to the environment.

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## SECTION 14: Transport information

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

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

#### Pennsylvania Right To Know Components

Chemical name: Propanol, oxybis-

CAS number: 25265-71-8

#### HMIS Rating

Brass Plating Solution Part B	
<b>HEALTH</b>	<b>1</b>

## Safety Data Sheet Brass Plating Solution Part B

FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	F

### NFPA Rating



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## SECTION 16: Other information

### 16.1 Further information/disclaimer

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