

Safety Data Sheet
Plug N Plate Zinc Solution

SECTION 1: Identification

1.1 Product identifier

Product name	Plug N Plate Zinc Solution
Product number	PNPZN
Brand	Caswell

1.3 Recommended use of the chemical and restrictions on use

Zinc Electroplating

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

- Acute toxicity, oral (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 3
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 4

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Safety Data Sheet

Plug N Plate Zinc Solution

Hazard statement(s)

H302	Harmful if swallowed
H316	Causes mild skin irritation
H402	Harmful to aquatic life
H413	May cause long lasting harmful effects to aquatic life

Precautionary statement(s)

P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell,
P330	Rinse mouth.
P501	Dispose of contents/container to ...
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
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 ... 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.
P273	Avoid release to the environment.
P391	Collect spillage.
P332+P313	If skin irritation occurs: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

3.1 Substances

Hazardous components

1. POTASSIUM CHLORIDE

Concentration	30 - 30 %
CAS no.	7447-40-7

2. Zinc chloride

Concentration	15 - 15 % (Volume)
EC no.	231-592-0
CAS no.	7646-85-7
Index no.	030-003-00-2

3. Ammonium chloride

Concentration	5 - 5 %
EC no.	235-186-4
CAS no.	12125-02-9
Index no.	017-014-00-8

4. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration	50 - 50 % (Volume)
CAS no.	7732-18-5

Safety Data Sheet

Plug N Plate Zinc Solution

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Corrosive. Harmful if swallowed. Affects cardiovascular system
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
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

Skin and eye burns. May cause delayed death occurring from strictures of the esophagus and pylorus. Repeated skin contact can cause varying degrees of problems ranging from dermatitis to ulcerations. Repeated inhalation can cause occupational asthma.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

None

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

See section 8

6.2 Environmental precautions

Hazardous to the environment. Do not allow runoff to enter environment.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

Safety Data Sheet

Plug N Plate Zinc Solution

- 7.2 Conditions for safe storage, including any incompatibilities**
Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Zinc chloride fume (CAS: 7646-85-7)

PEL (Inhalation): 1 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

2. Zinc chloride fume (CAS: 7646-85-7)

PEL (Inhalation): 1 mg/m³, (ST) 2 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Zinc chloride fume (CAS: 7646-85-7)

REL (Inhalation): 1 mg/m³, (ST) 2 mg/m³ (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

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)

Pictograms



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

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

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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	Brown Liquid
Odor	Slight almond odor
Odor threshold	
pH	4
Melting point/freezing point	Not available

Safety Data Sheet

Plug N Plate Zinc Solution

Initial boiling point and boiling range	Not available
Flash point	
Evaporation rate	Not available
Flammability (solid, gas)	Not flammable
Upper/lower flammability limits	
Vapor pressure	
Vapor density	Not available
Relative density	Not available
Solubility(ies)	Complete In Water
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

10.1 Reactivity

Not reactive

10.2 Chemical stability

Stable

10.4 Conditions to avoid

Contact with incompatible materials.

10.5 Incompatible materials

Cyanides and sulfides. Powdered Zinc

10.6 Hazardous decomposition products

When heated to decomposition, toxic fumes or chlorine and zinc oxide may be emitted.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Toxic. May cause irritation or corrosion of the gastrointestinal tract with abdominal pain, nausea, vomiting. May cause delayed death occurring from strictures of the esophagus and pylorus.

Skin corrosion/irritation

Contact may cause skin burns.

Serious eye damage/irritation

Causes eye burns.

Respiratory or skin sensitization

Destructive to tissues of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

Carcinogenicity

Not a carcinogen

Safety Data Sheet

Plug N Plate Zinc Solution

SECTION 12: Ecological information

Toxicity

Hazardous to the environment.

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

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

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

Massachusetts Right To Know Components

Chemical name: Zinc chloride

CAS number: 7646-85-7

New Jersey Right To Know Components

Common name: ZINC CHLORIDE

CAS number: 7646-85-7

Pennsylvania Right To Know Components

Chemical name: Zinc chloride

CAS number: 7646-85-7

Massachusetts Right To Know Components

Chemical name: Ammonium chloride

CAS number: 12125-02-9

New Jersey Right To Know Components

Common name: AMMONIUM CHLORIDE

CAS number: 12125-02-9

Pennsylvania Right To Know Components

Chemical name: Ammonium chloride

CAS number: 12125-02-9

HMIS Rating

Plug N Plate Zinc Solution	
HEALTH	* 3

Safety Data Sheet Plug N Plate Zinc Solution

FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

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