

Safety Data Sheet
29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Perrhenic acid solution

Product Code: 1002-S

Cas #: 13768-11-1

Company: Colonial Metals, Inc.
 Building 20
 505 Blue Ball Road
 Elkton, MD 21921 United States
 Company Contact: EHS Director
 Telephone Number: 410-398-7200
 FAX Number: 410-398-2918
 E-Mail : info@colonialmetals.com
 Web Site: www.colonialmetals.com



www.colonialmetals.com

Emergency Response: Supplier Emergency Contacts & Phone Number

Chemtrec: 800-424-9300

World Wide - Call COLLECT to U.S: 703-527-3887

Section 2: Hazards Identification

Hazard Pictograms:



Signal Word: Danger

Hazard Category: Serious eye damage/eye irritation Cat 1
 Skin corrosion/irritation Cat 1
 Acute tox, inh. Cat 5
 Acute tox, oral Cat 5
 Specific target organ tox, single exp. Cat 3 (resp irrit)

Hazard Statements: H318: Causes serious eye damage
 H314: Causes severe skin burns and eye damage
 H333: May be harmful if inhaled
 H303: May be harmful if swallowed
 H335: May cause respiratory irritation

Precautionary Statements: P202: Do not handle until all safety precautions have been read and understood
 P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
 P264: Wash thoroughly after handling
 P280: Wear protective gloves/protective clothing/eye protection/face protection
 P310: Immediately call a POISON CENTER or doctor/physician
 P321: Specific treatment (see ... on this label)
 P363: Wash contaminated clothing before reuse
 P405: Store locked up
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
 P402+404: Store in a dry place. Store in a closed container
 P501: Dispose of contents/container in accordance with local/national/international rules.

Hazards not otherwise classified:

To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated. Avoid high temperatures. Product incompatible with strong reducers, metals, and bases. May decompose oxidation products of Rhenium. This product is corrosive and can cause burns

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Perrhenic Acid	Skin Corr. 1B; Eye Dam. 1; H314	13768-11-1	51 - 56
Water		7732-18-5	27 - 53
Product Name: Perrhenic Acid Solution Chemical Name: Perrhenic Acid Chemical Family: Group 7B Metal Chemical Formula: HReO ₄ xH ₂ O	This Product can contain: 1. 10 -50% Rhenium Metal		

Section 4: First Aid Measures

General Info: Ensure proper ventilation. Consult a physician. Show this SDS to the attending physician.

Notable Exposure symptoms: Irritation to skin, eyes and areas of contact.

If ingested: Rinse mouth. Seek immediate medical attention. Clear the airway and administer artificial respiration if not breathing.
If swallowed, do not induce vomiting unless directed to do so by medical personnel.

If inhaled: Remove the victim from the contaminated area while protecting yourself from exposure by wearing an appropriate respirator. Put a similar respirator on the victim if possible. Get medical attention immediately.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation develops or persists.

Skin contact: Take off immediately all contaminated clothing. Rinse with water thoroughly. Get medical advice if irritation develops or persists.

Additional Info: Observe for any symptoms for several hours after exposure. Follow up with medical attention if symptoms develop.

Section 5: Fire Fighting Measures

General Info: Product is not flammable

Extinguishing In case of fire use dry chemical powder or CO₂.

Method / Equipment:

Hazardous Constituents associated with burning / combustion (s.a. rhenium oxide) are to be considered toxic.

Decomposition Info: Firefighters should wear self-contained breathing apparatus and full protective gear.

In case of fire, can decompose to emit toxic and other hazardous decomposition products.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing dust. Ventilate area if easy to do so. Contact local authorities if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Containment Equipment and Procedures: Soak up (neutralize with sodium carbonate or an absorbent such as vermiculite) and place in a sealed acid proof container. Person protected with full face shield and NIOSH approved respirator cartridge for ammonia vapor and dust. Ventilate area and wash spill site after pick up is complete.

Cleanup Procedures: Collect all contaminated media, or other cleanup materials into a waste receptacle as a hazardous waste. If cleaning surface is necessary, utilize vacuum cleaner, provided adequate ventilation is available.

Section 7: Handling and Storage

- Safe Handling** Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid breathing dust/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.
- Other Precautions:** 0.01 ppm high efficiency particular respirator/supplied air respirator/self-contained breathing apparatus; 0.2 ppm same as above with full face piece; 1 ppm powdered air purifying respirator with high efficiency filter/type C supplied air respirator operated in pressure demand mode. Store in a sealed container, plastic or plastic liner, in a cool, well ventilated, dry area.
- Recommendations for Storage:** Store in cool, dry area in a tightly closed product container away from sources of ignition or flame. Do not store directly on ground. Containers which are opened must be carefully resealed and kept upright to prevent leakages
- Incompatibilities:** Store away from strong acids. Keep away from combustible material. Refer to Section 10.

Section 8: Exposure Control / Personal Protection

- General / Local Exhaust:** Required in handling area
- Engineering Mechanical:** Desirable to insure concentration of material below TLV/TWA levels
- Controls: Other:** Closed Ventilation system – (Laboratory Fume Hood)
- Work Clothing:** Protective work clothing which covers skin and prevents exposures.
- Eye/face protection:** Wear safety glasses with side shields or goggles or face shield.
- Skin Protection:** Wear chemical resistant gloves.
- Respiratory Protection:** Utilize organic vapor respirator if airborne levels are not maintained or if ventilation is inadequate.
- Additional Information:** Observe good chemical hygiene practices. Do not smoke or eat while using this product. Wash hands or exposed skin after using the product.

Section 9: Physical and Chemical Properties

State: Liquid	Melting Point: No data available	Freezing Point: N/A
Color: Light Yellow	Boiling Point/Range: N/A	pH <1
Molecular Wt. 251.21	Odor: None	Water Solubility: N/A
Evaporation rate: N/A	Flash Point: N/A	Part. Coeff (n-octanol/water): N/A
Upper Flam Limits: N/A	Lower Flam Limits: N/A	Vapor Density: N/A
VOC Content (lbs/gal): N/A	Specific Gravity: 2.16 g/cm3	Autoignition Temp: N/A

Section 10: Stability and Reactivity

- General:** This product is stable and non-reactive under normal conditions of use/storage. Product is not subject to hazardous polymerization. Avoid open flame and ignition sources.
- Incompatible materials:** Strong bases
- Decomposition products:** CO and CO2

Section 11: Toxicological Information

- General Information:** No data available. To the best of our knowledge, the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.
- Toxicological Information (product):** Product has not been tested. Prolonged inhalation may be harmful to human health. Irritating in case of skin or eye contact. May be harmful if swallowed or in contact with skin.
- Carcinogenicity or mutagenicity:** IARC/NTP/OSHA has determined that no component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.

Section 12: Ecological Information

General information: Product not tested.

Section 13: Disposal Information

Product disposal: Dispose of product in accordance with local, regional, and national regulations. Consult with waste contractor.

Container disposal: Treat empty containers with extra care. Consult waste contractor.

Other considerations: NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information presented above incomplete, inaccurate, or otherwise inappropriate

Section 14: Transport Information

DOT/IMDG: Proper Shipping Name

Corrosive liquid, acidic, inorganic, n.o.s. (perhenic acid)

Hazard Class

8

DOT Identification Number

3264

DOT Shipping Label

Corrosive

Packaging Requirements

PG II

IMO: See regulation for information

IATA: Same as DOT/IMDG. Always consult IATA regulations before shipping

Section 15: Regulatory Information

TSCA: All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Canadian DSL: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR

European Union (EU) Symbol of danger: C

Regulatory Indication of Danger: Corrosive

Information: R: 34

Risk Phrase: Causes burns

S: 26 36/37/39 45

Safety Phrase: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately. (show the label where possible)

Other International Regulations

US classification and Label Text

Indication of Danger: Corrosive

Risk Phrase: Causes burns

Safety Phrase: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately. (show the label where possible)

Section 16: Other Information

NFPA Rating

Health: 3

Fire: 0

Reactivity: 0

Other: COR

HMIS Rating

Health: 3

Fire: 0

Reactivity: 0

Personal

Protection: J

Disclaimer: In compliance with the OSHA Hazard communication Standard, 2.9 C.F.R 1910.1200, we are providing you with a Materials Safety Data Sheet (MSDS) for the hazardous material you are purchasing.

It is your responsibility to educate your employees on the safe use of the hazardous material. With this in mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and copy should be retained in your files for future reference.

Colonial Metals, Inc. makes no presentation as to the accuracy of the information in the MSDS. The information is believe to be correct; however, you (the customer), should preform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the MSDS to your customer.

Colonial Metals, Inc.

SDS Author: Dr. Ernest Addo

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