Safety Data Sheet

ProCess Water
Date of issue: 3/10/20 Rev Date: 6/13/20
QMS-17314 rev 1
According to 29 CFR 1910.1200 Hazard Communication

SECTION 1 - Identification of Substance or Mixture and of the Supplier

1.1 Product Identifier

Product Name: ProCess Water
Common Synonyms: Pyrolysis liquid

1.2 Other Means of Identification

Complex mixture of water, various highly oxygenated hydrocarbon compounds, and inorganic compounds . A mixture of over one hundred chemicals derived by the thermal decomposition of biomass in the absence of oxygen.

1.3 Recommended use of the chemical and restrictions on use

DO NOT drink. Contains benzene and cyanide.
Uses are to be determined.

1.4 Supplier's Details (including name, address, phone number)

Proton Power, Inc.
487 Sam Rayburn Parkway
Lenoir City, TN 37771
865-376-9002

1.5 Emergency Phone Numbers

865-312-3859 or 865-603-0578 or 865-376-9002

SECTION 2 - Hazard Identification

2.1 Hazard Classification

May cause skin irritation
May cause severe eye irritation/damage
Harmful if swallowed

2.2 Label Elements

WARNING

May cause skin irritation
May cause severe eye irritation/damage
May be harmful if swallowed

2.3 Other Hazards

Ingestion: Swallowing this material may be harmful.
Skin contact: Contact may cause reddening and irritation.
Eye contact: Contact may cause pain and severe reddening and inflammation of the conjunctiva.

SECTION 3 - Composition/Information on Ingredients

3.1 Substance/Mixture

Name	Product Identifier	Percent by wt.
Water	Mixture	
Oxygenated hydrocarbons (phenols, aldehydes, ketones, furans, furfural)		0.1% to 2%
Carboxylic acids		
Free cyanide		~1 to 300 ppm
Benzene		~ 1 to 25 ppm

SECTION 4 – First Aid Measures

4.1 Description of First Aid Measures

Skin Contact: Wash area thoroughly with soap and water.

Eye Contact: Immediately flush with clean, low-pressure water for at least 15 minutes. Seek medical attention.

Ingestion: If swallowed, wash mouth with water. Seek medical attention immediately.

Inhalation: Move to fresh air if necessary.

SECTION 5 – Firefighting Measures

5.1 Extinguishing Media

Carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray.

SECTION 6 – Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

In the event of a release or spill, stop at the source if you can do so safely. Clean up with absorbent pad, sand, or shop vacuum.

Recommended minimum personal protective equipment includes gloves and safety glasses.

6.2 Environmental Precautions

Keep spills out of sewer and bodies of water.

6.3 Methods and Material for Containment and Cleanup

Dike and contain the spill with inert material. Absorb residual liquid with sand, vermiculite or diatomite. Transfer material to a container for disposal in accordance with local, state and federal regulations.

SECTION 7 – Handling and Storage

7.1 Precautions for Safe Handling

Avoid breathing vapor; avoid contact with skin, eyes, and mouth.
Use caution when pouring to prevent splashing.
Use in a well ventilated area.

7.2 Conditions for Safe Storage

Store in a tightly closed container in a well ventilated area.

7.3 Specific End Use(s)

To be determined

SECTION 8 - Exposure Controls/Personal Protection

8.1 Engineering Controls

Use product in a well ventilated area.

Install emergency eye wash station and shower.

8.2 Personal Protective Equipment

Safety glasses or chemical splash goggles and gloves.

8.3 Other Controls

Maintain good housekeeping to prevent release of material.

SECTION 9 - Physical and Chemical Properties

Form:	Liquid
Color:	brown
Odor:	Smoky odor
Flash point:	>100°C
Density:	1.010 g/ml
Vapor pressure :	Not determined
pH:	2.2 to 4.0

SECTION 10 – Chemical Stability & Reactivity Information

Storage Stability:	Stable under normal conditions
Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	None
Hazardous Reactions:	No dangerous reactions known
Hazardous Decomposition Products:	No dangerous decomposition products known.

SECTION 11 – Toxicological Information

11.1 Acute Oral Toxicity

Benzene:	LD50 oral rat; >2,000 mg/kg
Cyanide (basis 1000 ppm):	LD50 oral rat; >2390 mg/kg

This material does contain cyanide in the solution. Bench scale testing confirms that cyanide is not liberated at low pH.

11.2 Potential Health Effects

Inhalation:	May cause respiratory tract irritation
Skin:	May cause skin irritation
Eyes:	May cause severe eye irritation/damage
Ingestion:	May be very harmful if swallowed
Carcinogenicity:	Benzene is a human carcinogen

11.2 Routes of Exposure

Inhalation
Skin Contact
Eyes

SECTION 12 – Ecological Information

12.1 Toxicity

Ecology - Water	Harmful to aquatic life
Cyanide (basis 1000 ppm):	LC50 fish 1; 20.7 mg/l
	Not readily biodegradable in water
Benzene:	LC50 fish; 5.3 mg/l

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Instructions

Observe all federal, state, and local environmental regulations.

SECTION 14 – Transport Information

14.1 DOT Regulations

non-regulated

SECTION 15 – Regulatory Information (non-mandatory)

SARA Section 302 EHS:	Not listed
SARA Sec 311/312:	Not listed
SARA Section 313:	Benzene
TSCA:	Not listed
CERCLA:	Benzene, 10 lbs
RCRA:	Hazardous waste, D018

SECTION 16 – Other Information

This SDS summarizes to the best of our knowledge at the date of issue, the health and safety hazards associated with this material and general guidance on how to safely handle the material in the workplace. As additional information becomes available this SDS will be updated.