

SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier**Product Name:** Drill Vis**UN/ID No** Not Regulated**Synonyms** Anionic Poly-Acrylamide, phpa**Recommended use of the chemical and restrictions on use****Recommended Use** Drilling fluid additive**Details of the supplier of the safety data sheet****Supplier Address**Valence Drilling Fluids
2575 Kelly Pointe Parkway
Edmond, Ok 73013**Emergency Telephone Number****Company Phone Number** Phone: 405-285-6454**Emergency Telephone (24 hr)** Chemtrec +1 703-527-3887 (International)
1-800-424-9300 (North America)

2. HAZARDS IDENTIFICATION

Appearance White liquid**Physical State** Liquid**Odor** Light Soapy**Emergency Overview**

May cause skin or eye irritation after repeated or prolonged contact.

HMIS Rating

Health	1
Flammability	0
Reactivity	0
Personal Protection Index	C

Potential Health Effects**Eye**

May cause irritation with prolonged contact.

Skin

May cause irritation with prolonged contact.

Inhalation

No hazards expected in normal industrial use at room temperature. Prolonged or excessive inhalation may cause respiratory tract infection.

Ingestion

Ingestion is not considered a potential route of exposure.

Chronic Effects

Frequent or prolonged contact with product may defat and dry the skin, leading to discomfort and dermatitis.

Reproductive Hazards

None known.

Carcinogenicity Information

Not listed by IARC, OSHA, NTP as a carcinogen. No known cancer hazards.

Target Organ

Eyes, skin, respiratory tract.

Medical Conditions Aggravated by Exposure

There is no evidence that this product aggravates an existing medical condition.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Liquid PHPA	Proprietary	100

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Hazards Disclosure

This product contains no known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under SARA 311 and 312, this product contains no known hazardous materials.

4. FIRST-AID MEASURES**First Aid Measures**

Eye Contact	After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin Contact	Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get medical attention.
Ingestion	If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Never give anything by mouth to an unconscious person. Call a physician or POISON CENTER immediately.

Note to Physician

Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

5. FIRE-FIGHTING MEASURES

Flammable Properties

COC Flash Point : N/A

Auto-ignition Temperature: N/A

Non Combustible.

Flammable Limits in Air

LEL: N/A

UEL: N/A

Suitable Extinguishing MediaWater, carbon dioxide (CO₂), foam or dry powder. Use water spray to cool fire exposed containers.**Specific Hazards Arising from the Chemical****Hazardous Combustion Products** Smoke. Carbon monoxide. Carbon dioxide (CO₂). Oxides of nitrogen.**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Wear appropriate personal protective equipment. Protect skin and eyes from exposure.**Methods and material for containment and cleaning up**

Initial Containment	Absorb spills with inert material. Treat or dispose of waste material in accordance with all local, state, and national requirements. Wash area to prevent slipping.
Large Spills Procedure	Absorb spill with inert material (dry sand or earth), then place in a chemical waste container. Flush spill area with water to wastewater treatment system.
Small Spills Procedure	Absorb spill with inert material (dry sand or earth). Treat or dispose of waste material in accordance with all local, state, and national requirements.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on Safe Handling** Avoid contact with eyes, skin and clothing.**Handling (Physical Aspects)** Secure container after each use.**Conditions for safe storage, including any incompatibilities****Storage Conditions** Keep container closed when not in use.**Suitable Construction Material** PVC, Teflon, Aluminum, Stainless Steel 304, Stainless Steel 316L, Hastelloy C-276, Kalrez, PTFE, Surface fluorinated polyethylene.**Unsuitable Construction Material**
Copper, Neoprene, Ethylene propylene, Mild Steel, Polypropylene, Polyethylene, Carbon Steel C1018, Plexiglas, EPDM, Alfax, Brass, Nylon, Buna-N, HDPE (High density polyethylene). Natural rubber, Polyurethane, Hypalon, Viton.**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Appropriate engineering controls

Engineering Controls	Good general ventilation should be sufficient to control airborne levels.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	When splashing of the material may occur, chemical goggles and a face shield are recommended.
Skin and Body Protection	Wear protective gloves to minimize skin contamination.
Respiratory Protection	When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State Appearance	Liquid White liquid	Odor Odor Threshold	Light soapy Not determined
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<u>Property</u>	<u>Values</u>
pH	7.21
Melting Point/Freezing Point	Not determined
Boiling Point/Boiling Range	Not determined
Flash Point	Not determined
Evaporation Rate	Not available
Flammability (Solid, Gas)	Liquid-not applicable
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	Not available
Vapor Density	Not determined
Specific Gravity	1.0264 (Water = 1)
Bulk Density	8.56 pounds per gallon
Water Solubility	Insoluble
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

None known.

Incompatible Materials

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products

Smoke, Carbon Monoxide, Carbon Dioxide. Oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

No toxicity studies have been conducted on this product.

12. ECOLOGICAL INFORMATION**Environmental Hazards**

Ecotoxicological Effects: The following results are for 1% aqueous solution.

Rainbow Trout - 96 hrs > 1,000 mg/l, Sheepshead Minnow - 96 hours > 1,000 mg/l, Daphnia magna - 48 hrs 270 mg/l.

All essentially non-toxic.

Environmental Fate:

Persistency and Degradation: Chemical Oxygen Demand (COD): 1,000,000 mg/l.

Biological Oxygen Demand (BOD): Incubation period 5 days, Value 204,000 mg/l.

The organic portion of this preparation is expected to be inherently biodegradable.

Mobility: The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment this materials is expected to distribute to the air, water and soil/sediment in the approximate respective percentages: Air < %, Water 10-30%, Soil/Sediment 50-70%. The portion in water is expected to be soluble or dispersible.

Bioaccumulation

Component substances have a potential to bioconcentrate.

Environmental Hazard and Exposure Characterization

Based on our hazard characterization, the potential environmental hazard is: Moderate.

Based on our recommended product application and the product's characteristics, the potential environmental exposure is: Low

13. DISPOSAL CONSIDERATIONS**Disposal Waste**

Treat or dispose of waste material in accordance with all local, state, and national requirements.

14. TRANSPORT INFORMATION**DOT**

UN/ID No	Not Regulated
Proper Shipping Name	N/A
Hazard Class	N/A
Packing Group	N/A

IATA

UN/ID No	Not Regulated
Proper Shipping Name	N/A
Hazard Class	N/A
Subsidiary Hazard Class	N/A
Packing Group	N/A

IMDG

UN/ID No	Not Regulated
Proper Shipping Name	N/A
Hazard Class	N/A
Subsidiary Hazard Class	N/A
Packing Group	N/A

15. REGULATORY INFORMATION**Miscellaneous**

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

16. OTHER INFORMATION

Issue Date:	07-Sep-2011
Revision Date	11-Oct-2017
Revision Note:	Reviewed

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet