HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: HMP Con PF

Revision Date: 04-Jan-2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: HMP Con PF

Synonyms: None

Chemical Family: Proprietary Aqueous Blend

Application: Gelling Agent

Manufacturer/Supplier Halliburton Energy Services

P.O. Box 1431

Duncan, Oklahoma 73536-0431

Emergency Telephone: (281) 575-5000

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | CAS Number | PERCENT | ACGIH TLV-TWA | OSHA PEL-TWA |
|--------------------|------------|----------|----------------------|---------------------|
| Potassium chloride | 7447-40-7 | 10 - 30% | Not applicable | Not applicable |
| Sodium hydroxide | 1310-73-2 | 0 - 1% | 2 mg/m ³ | 2 mg/m ³ |

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye burns. May cause skin and respiratory irritation. May be harmful if

swallowed.

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably

mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin In case of contact, immediately flush skin with plenty of soap and water for at least 15

minutes. Get medical attention. Remove contaminated clothing and launder before

reuse.

Eyes In case of contact, or suspected contact, immediately flush eyes with plenty of water

for at least 15 minutes and get medical attention immediately after flushing.

Ingestion Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek

medical attention. Never give anything by mouth to an unconscious person.

Notes to Physician Not Applicable

FIRE FIGHTING MEASURES

Flash Point/Range (F): > 200 Flash Point/Range (C): > 93 **Flash Point Method: PMCC**

Autoignition Temperature (F): Not Determined **Autoignition Temperature (C):** Not Determined Flammability Limits in Air - Lower (%): Not Determined Flammability Limits in Air - Upper (%): Not Determined

Fire Extinguishing Media All standard firefighting media.

Special Exposure Hazards Decomposition in fire may produce toxic gases.

Fire-Fighters

Special Protective Equipment for Full protective clothing and approved self-contained breathing apparatus required for

fire fighting personnel.

Health 2, Flammability 1, Reactivity 0 **NFPA Ratings: HMIS Ratings:** Health 2, Flammability 1, Reactivity 0

ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment.

Environmental Precautionary

Measures

Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning /

Absorption

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials.

Neutralize to pH of 6-8. Scoop up and remove.

HANDLING AND STORAGE

Handling Precautions Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

Storage Information Store away from acids. Store away from oxidizers. Store in a cool well ventilated

area. Keep container closed when not in use. Store at temperatures between 50 and

100 F (10 and 37.8 C). Do not freeze.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use in a well ventilated area. Local exhaust ventilation should be used in areas

without good cross ventilation.

Respiratory Protection Dust/mist respirator. (95%)

Hand Protection Impervious rubber gloves.

Skin Protection Rubber apron.

Chemical goggles; also wear a face shield if splashing hazard exists. **Eye Protection**

Other Precautions Evewash fountains and safety showers must be easily accessible.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Yellow to brown Odor: Odorless pH: > 13 (1%)

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9. PHYSICAL AND CHEMICAL PROPERTIES

 Specific Gravity @ 20 C (Water=1):
 1.15

 Density @ 20 C (Ibs./gallon):
 9.6

 Bulk Density @ 20 C (Ibs/ft3):
 71.76

Boiling Point/Range (F):

Boiling Point/Range (C):

Freezing Point/Range (F):

Freezing Point/Range (C):

Vapor Pressure @ 20 C (mmHg):

Vapor Density (Air=1):

Not Determined

Not Determined

Not Determined

Percent Volatiles: ~73

Evaporation Rate (Butyl Acetate=1): Not Determined

Solubility in Water (g/100ml): Soluble

Solubility in Solvents (g/100ml):

Not Determined VOCs (lbs./gallon):

Viscosity, Dynamic @ 20 C (centipoise):

Viscosity, Kinematic @ 20 C (centistrokes):

Partition Coefficient/n-Octanol/Water:

Molecular Weight (g/mole):

Not Determined
Not Determined

10. STABILITY AND REACTIVITY

Stability Data: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid None anticipated

Incompatibility (Materials to

Avoid)

Strong oxidizers. Strong acids.

Hazardous Decomposition

Products

Carbon monoxide and carbon dioxide.

Additional Guidelines Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Inhalation May cause respiratory irritation.

Skin Contact May cause skin irritation.

Eye Contact Causes severe eye irritation May cause eye burns.

Ingestion Irritation of the mouth, throat, and stomach.

Aggravated Medical Conditions Skin disorders.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are

chronic health hazards.

Other Information None known.

Toxicity Tests

Oral Toxicity: Not determined

Dermal Toxicity: Not determined

Inhalation Toxicity: Not determined

HMP Con PF Page 3 of 6 Primary Irritation Effect: Not determined

Carcinogenicity Not determined

Genotoxicity: Not determined

Reproductive / Developmental Toxicity:

Not determined

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air) Not determined

Persistence/Degradability Slowly biodegradable

Bio-accumulation Not determined

Ecotoxicological Information

Acute Fish Toxicity: Not determined Acute Crustaceans Toxicity: Not determined Acute Algae Toxicity: Not determined

Chemical Fate Information Not determined

Other Information Not applicable

13. DISPOSAL CONSIDERATIONS

Disposal MethodDisposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION

Land Transportation

DOT

Not restricted

Canadian TDG

Not restricted

ADR

Not restricted

Air Transportation

ICAO/IATA

Not restricted

Sea Transportation

IMDG

Not restricted

Other Shipping Information

Labels: None

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory All components listed on inventory or are exempt.

EPA SARA Title III Extremely Hazardous Substances

Not applicable

EPA SARA (311,312) Hazard

Class

Acute Health Hazard

EPA SARA (313) Chemicals

This product contains toxic chemical(s) listed below which is(are) subject to the

reporting requirements of Section 313 of Title III of SARA and 40 CFR Part 372:

Sodium Hydroxide//1310-73-2

EPA CERCLA/Superfund Reportable Spill Quantity

EPA Reportable Spill Quantity is 1000 Pounds based on Sodium hydroxide (CAS:

1310-73-2).

EPA RCRA Hazardous Waste

Classification

If product becomes a waste, it does meet the criteria of a hazardous waste as

defined by the US EPA, because of:

Corrosivity D002

California Proposition 65 All components listed do not apply to the California Proposition 65 Regulation.

MA Right-to-Know Law One or more components listed.

NJ Right-to-Know Law One or more components listed.

PA Right-to-Know Law One or more components listed.

Canadian Regulations

Canadian DSL Inventory All components listed on inventory.

WHMIS Hazard Class E Corrosive Material

16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS

Not applicable

Additional Information For additional information on the use of this product, contact your local Halliburton

representative.

For questions about the Material Safety Data Sheet for this or other Halliburton

products, contact Chemical Compliance at 1-580-251-4335.

Disclaimer Statement

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END OF MSDS