

MATERIAL SAFETY DATA SHEET**Product Trade Name:** HpH Foamer**Revision Date:** 24-Apr-2013**Revision Number:** 6**1. Product and Company Identification****Product Identifier**

Product Trade Name: HpH Foamer
Synonyms: None
Chemical Family: Not determined
Internal ID Code HM006176

Product Use

Application: Non-ionic Surfactant

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services
645 - 7th Ave SW Suite 2200
Calgary, AB
T2P 4G8
Canada

Emergency Telephone Number (281) 575-5000

Prepared By

Chemical Compliance
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2. Hazard(s) Identification**WHIMIS Classification**

WHIMIS Hazard Class E Corrosive Material

WHIMIS Symbol(s)**Summary of hazards of the product**

Hazard Overview May cause severe eye irritation. May cause skin irritation. May be harmful if swallowed.

3. Composition/information on Ingredients

| Substances | CAS Number | PERCENT (w/w) | HMIRA Registry Number | Filing Date |
|------------|-------------|---------------|-----------------------|----------------|
| Amine | Proprietary | 60 - 100% | Not applicable | Not applicable |

4. First aid measures

Description of 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. |
| Eyes | Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention. |
| Skin | Wash with soap and water. Get medical attention if irritation persists. |
| 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. |

Most important symptoms and effects, both acute and delayed

May cause eye and skin burns.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. Fire Fighting Measures**Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance or mixture**Special Exposure Hazards**

Decomposition in fire may produce toxic gases. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations. Use water spray to cool fire exposed surfaces.

Advice for firefighters**Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Hazardous combustion products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

6. Accidental release measures**Personal precautions and emergency procedures****Protective Equipment**

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. Scoop up and remove.

7. Handling and Storage**Precautions for safe handling**

Avoid breathing vapors. Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse. Material is slippery underfoot.

Conditions for safe storage and Incompatible materials for storage

Store away from oxidizers. Store away from acids. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 48 months.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits**Exposure Limits**

| Substances | CAS Number | ACGIH TLV-TWA | OSHA PEL-TWA |
|------------|-------------|----------------|----------------|
| Amine | Proprietary | Not applicable | Not applicable |

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

Personal Protective Equipment (PPE)**Respiratory Protection**

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:
Organic vapor respirator.

Hand Protection

Impervious rubber gloves.

Skin Protection

Rubber apron.

Eye Protection

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

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid

Color: Clear amber

Odor: Pungent

Odor Threshold: No information available

Property**Values**

Remarks/ - Method

pH:

9 - 10.5

pH Concentration of Solution:

No information available.

Freezing Point/Range

No information available.

Melting Point/Range

No information available

Boiling Point/Range (C):

No information available.

Flash Point/Range (C):

> 93 °C

Flash Point Method:

PMCC

Autoignition Temperature (C):

No information available.

Flammability Limits in Air - Lower (%):

No information available.

Flammability Limits in Air - Upper (%):

No information available.

Evaporation Rate (Butyl Acetate=1):

< 0.01

Vapor Pressure @ 20 C (mmHg):

No information available.

Vapor Density (Air=1):

No information available.

Specific Gravity @ 20 C (Water=1):

1.053 - 1.083

Solubility in Water (g/100ml):

Soluble

Solubility in other solvents

No information available.

Partition Coefficient/n-Octanol/Water:

No information available.

Decomposition Temperature (C):

No information available.

Viscosity

No information available

Explosive Properties

No information available

Oxidizing Properties

No information available

Other Information

Molecular Weight (g/mole):

No information available.

VOC Content (%)

No information available

10. Stability and Reactivity

Conditions of Reactivity**Conditions to Avoid**

Keep away from heat, sparks and flame. Do not expose to heat or store at temperatures above 120 F (49 C).

Hazardous Polymerization:

Will Not Occur

Chemical Stability

Stable

Sensitivity to Static Discharge

Not available

Sensitivity to Mechanical Impact

Not available

Incompatible materials

Strong oxidizers. Strong acids.

Hazardous Decomposition Products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

11. Toxicological Information

Routes of entry

Eye or skin contact, inhalation.

Information on Toxicological Effects**Acute effects from exposure**

| | |
|---------------------|---|
| Inhalation | May cause respiratory irritation. |
| Eye Contact | Causes severe eye irritation May cause eye burns. |
| Skin Contact | May cause skin irritation. |
| Ingestion | May be harmful if swallowed. |

Chronic effects from exposure**Chronic Effects/Carcinogenicity**

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Irritancy of product**Irritation**

Irritating to skin Corrosive to eyes

Sensitization of product**Sensitization**

Not confirmed to cause skin or respiratory sensitization.

Mutagenicity**Mutagenic Effects**

Not regarded as mutagenic

Carcinogenicity**Carcinogenic Effects**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

Reproductive Toxicity**Reproductive Toxicity**

This product does not contain any known or suspected reproductive hazards

Teratogenicity/embryotoxicity**Teratogenic**

Not a confirmed teratogen or embryotoxin.

Toxicologically synergistic material

Not available

Acute Toxicity

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------|-------------|--------------------|----------------------|-------------------|
| Amine | Proprietary | 1850 mg/kg (Rat) | 750 mg/kg (Rabbit) | No data available |

12. Ecological Information**Toxicity****Ecotoxicity Effects**

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Toxicity for Invertebrates |
|------------|-------------|--------------------------|--------------------------|----------------------------|----------------------------|
| Amine | Proprietary | No information available | No information available | No information available | No information available |

Persistence and Degradability

No information available

Bioaccumulation potential

No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations**Disposal Method** Disposal should be made in accordance with federal, state, and local regulations.**Contaminated Packaging** Follow all applicable national or local regulations.**14. Transport Information****Canadian TDG**

| | |
|------------------------------------|-----------------|
| UN Number: | Not restricted. |
| UN Proper Shipping Name: | Not restricted |
| Transport Hazard Class(es): | Not applicable |

IATA/ICAO

| | |
|------------------------------------|-----------------|
| UN Number: | Not restricted. |
| UN Proper Shipping Name: | Not restricted |
| Transport Hazard Class(es): | Not applicable |

IMDG/IMO

| | |
|------------------------------------|-----------------|
| UN Number: | Not restricted. |
| UN Proper Shipping Name: | Not restricted |
| Transport Hazard Class(es): | Not applicable |

Special Precautions for User None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Regulations**Canadian DSL Inventory**

All components listed on inventory or are exempt.

WHMIS Hazard Class

E Corrosive Material

WHMIS Symbol(s)**US Regulations****US TSCA Inventory**

All components listed on inventory or are exempt.

16. Other Information**Preparation Information****Prepared By**

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Telephone: 1-580-251-4335
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Revision Date:

24-Apr-2013

Not applicable

Additional information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

Key or legend to abbreviations and acronyms

WHMIS: Workplace Hazardous Materials Information System

Key literature references and sources for data

www.ChemADVISOR.com/

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*****END OF MSDS*****