

SAFETY DATA SHEET

QUIK-FOAM® HP

Product Trade Name:

Revision Date: 11-Aug-2020

Revision Number: 1

1. Identification

1.1. Product Identifier

Product Trade Name: QUIK-FOAM® HP
Synonyms: None
Chemical Family: Blend
Internal ID Code: HM009405

1.2 Recommended use and restrictions on use

Application: Foaming Agent
Uses advised against: No information available

1.3 Manufacturer's Name and Contact Details

Baroid Industrial Drilling Products
645 - 7th Ave SW Suite 1800
Calgary, AB
T2P 4G8
Canada
Telephone: 1-403-231-9300

Manufacturer/Supplier

Baroid Industrial Drilling Products
Product Service Line of Halliburton Energy Services, Inc.
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4613 or 1-877-379-7412

Prepared By

Chemical Stewardship
Telephone: 1-281-871-6107
e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number

Emergency Telephone Number: 1-866-519-4752 or 1-760-476-3962 (accessible 24 hours a day / 7 days a week)
Global Incident Response Access Code: 334305
Contract Number: 14012

2. Hazard Identification

2.1 Classification of the substance or mixture

Skin Corrosion / Irritation	Category 2 - H315
Serious Eye Damage/Irritation	Category 1 - H318
Acute Aquatic Toxicity	Category 2 - H401
Chronic Aquatic Toxicity	Category 3 - H412
Flammable liquids.	Category 3 - H226

2.2. Label Elements

Hazard Pictograms



Signal Word: Danger

Hazard Statements
 H226 - Flammable liquid and vapor
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H401 - Toxic to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed
 P240 - Ground and bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment
 P242 - Use only non-sparking tools
 P243 - Take action to prevent static discharges.
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P273 - Avoid release to the environment

Response
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P362 + P364 - Take off contaminated clothing and wash before reuse
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor/physician
 P370 + P378 - In case of fire: Use CO2, dry chemical, or foam

Storage Disposal
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other hazards which do not result in classification

None known

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Canada	HMIRA Registry Number	Filing Date	Decision Granted Date
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	30 - 60%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)	03385190	2020-08-27	Pending
Isopropanol	67-63-0	10 - 30%	Eye Irrit. 2 (H319)	Not applicable	Not	Not

			STOT SE 3 (H336) Flam. Liq. 2 (H225)		applicable	applicable
Ammonium ether sulfate	Proprietary	10 - 30%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)	03385190	2020-08-27	Pending
Ethanol	64-17-5	5 - 10%	Eye Irrit. 2A (H319) Flam. Liq. 2 (H225)	Not applicable	Not applicable	Not applicable
Ammonium salt	Proprietary	1 - 5%	Acute Tox. 4 (H302) Skin Corr. 1 (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 2 (H401)	03385190	2020-08-27	Pending

Substances	Common Name	CAS Number
Isopropanol	2-Propanol ; Propan-2-ol	67-63-0

4. First aid measures

4.1. Description of first aid measures

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.

Skin In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Ingestion Rinse mouth with water many times. Get medical attention, if symptoms occur

4.2 Most important symptoms/effects, acute and delayed

Causes severe eye irritation which may damage tissue. Causes skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

Do NOT spray pool fires directly with water. A solid stream of water directed into hot burning liquid can cause splattering.

5.2 Specific hazards arising from the substance or mixture

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations.

5.3 Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Do not breathe dust, vapors or spray mist. Ensure adequate ventilation. Remove sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. See Section 8 for additional information.

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Remove ignition sources and work with non-sparking tools. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and Storage

7.1. Precautions for safe handling

Handling Precautions

Ensure adequate ventilation. Use appropriate protective equipment. Remove sources of ignition. Ground and bond containers when transferring from one container to another. Avoid contact with eyes, skin, or clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Store in a cool well ventilated area. Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use.

8. Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable	Not applicable
Isopropanol	67-63-0	TWA: 400 ppm TWA: 980 mg/m ³	TWA: 200 ppm STEL: 400 ppm
Ammonium ether sulfate	Proprietary	Not applicable	Not applicable
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1900 mg/m ³	STEL: 1000 ppm
Ammonium salt	Proprietary	Not applicable	Not applicable

8.2 Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas

8.3 Individual protection measures, such as personal protective equipment

Personal Protective Equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

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, AS/NZS 1715:2009, 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. Organic vapor respirator.

Hand Protection

Impervious rubber gloves. Manufacturer's directions for use should be observed

because of great diversity of types.
Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.
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

9.1. Information on basic physical and chemical properties

Physical State: Liquid **Color** Light yellow
Odor: Not determined **Odor** No information available
Threshold:

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	No data available
Freezing Point / Range	No data available
Melting Point / Range	No data available
Pour Point / Range	No data available
Boiling Point / Range	No data available
Flash Point	30 °C / 86 °F ASTM D7094
Flammability (solid, gas)	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	No data available
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%) No data available

10. Stability and Reactivity

10.1. Reactivity
 Not expected to be reactive.

10.2. Chemical stability
 Stable

10.3. Possibility of hazardous reactions
 Will Not Occur

10.4. Conditions to avoid
 Keep away from heat, sparks and flame.

10.5. Incompatible materials
 Strong oxidizers.

10.6. Hazardous decomposition products

Carbon oxides. Oxides of nitrogen. Oxides of sulfur.

11. Toxicological Information

11.1 Information on likely routes of exposure

Principle Route of Exposure Ingestion. Skin contact. Eye contact. Inhalation.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Acute Toxicity

Inhalation May cause mild respiratory irritation.
Eye Contact Causes serious eye damage.
Skin Contact Causes skin irritation.
Ingestion May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

11.3 Toxicity data

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	4100 mg/kg (Rat) (Similar substance)	>5000 mg/kg (Rabbit (Similar substance)	No data available
Isopropanol	67-63-0	4700 mg/kg-bw (rat)	12870 mg/kg-bw (rabbit)	72.6 mg/L (Rat, 4h, vapor)
Ammonium ether sulfate	Proprietary	> 2000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	No data available
Ethanol	64-17-5	7060 mg/kg (Rat) 10,470 mg/kg (Rat)	> 15,800 mg/kg (Rabbit) 17,100 mg/kg (Rabbit)	124.7 mg/L (Rat) 4h
Ammonium salt	Proprietary	1827 mg/kg (Rat)	500 mg/kg (Rabbits)	No data available

Substances	CAS Number	Skin corrosion/irritation
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Causes moderate skin irritation. (Rabbit) (similar substances)
Isopropanol	67-63-0	Non-irritating to the skin (Rabbit)
Ammonium ether sulfate	Proprietary	Skin, rabbit: Causes moderate skin irritation. (similar substances)
Ethanol	64-17-5	Not irritating to skin in rabbits.
Ammonium salt	Proprietary	Causes severe skin irritation with tissue destruction. (Rabbit) (similar substances)

Substances	CAS Number	Serious eye damage/irritation
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Causes severe eye irritation (Rabbit) (similar substances)
Isopropanol	67-63-0	Causes moderate eye irritation (Rabbit)
Ammonium ether sulfate	Proprietary	Causes severe eye irritation which may damage tissue.
Ethanol	64-17-5	Causes moderate eye irritation (Rabbit)
Ammonium salt	Proprietary	Causes severe eye irritation which may damage tissue. (Rabbit) (similar substances)

Substances	CAS Number	Skin Sensitization
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Isopropanol	67-63-0	Did not cause sensitization on laboratory animals (guinea pig)
Ammonium ether sulfate	Proprietary	Did not cause sensitization on laboratory animals (similar substances)
Ethanol	64-17-5	Did not cause sensitization on laboratory animals
Ammonium salt	Proprietary	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)

Substances	CAS Number	Respiratory Sensitization
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	No information available
Isopropanol	67-63-0	No information available
Ammonium ether sulfate	Proprietary	No information available

Ethanol	64-17-5	Did not cause sensitization on laboratory animals
Ammonium salt	Proprietary	No information available

Substances	CAS Number	Mutagenic Effects
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Isopropanol	67-63-0	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Ammonium ether sulfate	Proprietary	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Ethanol	64-17-5	Not regarded as mutagenic.
Ammonium salt	Proprietary	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)

Substances	CAS Number	Carcinogenic Effects
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Did not show carcinogenic effects in animal experiments (similar substances)
Isopropanol	67-63-0	Did not show carcinogenic effects in animal experiments
Ammonium ether sulfate	Proprietary	Did not show carcinogenic effects in animal experiments (similar substances)
Ethanol	64-17-5	Did not show carcinogenic effects in animal experiments
Ammonium salt	Proprietary	Did not show carcinogenic effects in animal experiments (similar substances)

Substances	CAS Number	Reproductive toxicity
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Did not show teratogenic effects in animal experiments. (similar substances)
Isopropanol	67-63-0	Animal testing did not show any effects on fertility.
Ammonium ether sulfate	Proprietary	Did not show teratogenic effects in animal experiments. Not a confirmed reproductive toxicant. (similar substances)
Ethanol	64-17-5	Animal testing did not show any effects on fertility.
Ammonium salt	Proprietary	Did not show teratogenic effects in animal experiments. (similar substances)

Substances	CAS Number	STOT - single exposure
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Isopropanol	67-63-0	May cause headache, dizziness, and other central nervous system effects.
Ammonium ether sulfate	Proprietary	No data of sufficient quality are available.
Ethanol	64-17-5	No significant toxicity observed in animal studies at concentration requiring classification.
Ammonium salt	Proprietary	May cause respiratory irritation. (similar substances)

Substances	CAS Number	STOT - repeated exposure
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Ammonium ether sulfate	Proprietary	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Ethanol	64-17-5	No significant toxicity observed in animal studies at concentration requiring classification.
Ammonium salt	Proprietary	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)

Substances	CAS Number	Aspiration hazard
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable
Isopropanol	67-63-0	Not applicable
Ammonium ether sulfate	Proprietary	Not applicable
Ethanol	64-17-5	Not applicable
Ammonium salt	Proprietary	Not applicable

12. Ecological Information

12.1. Toxicity

Ecotoxicity effects

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	EC50 (72h) 73.52 mg/L (Skeletonema costatum) ErC50 (72h) 32 mg/L (Selenstrum capricornutum) (similar substance) NOErC (72h) 9 mg/L (Selenastrum capricornutum) NOEC (72h) 32 mg/L (Skeletonema costatum)	LC50 (96h) 1 - 2.5 mg/L (Salmo trutta) (similar substance) LC50 (96h) 350 mg/L (Scophthalmus maximus) NOEC (30d) 0.88 mg/L (Pimephales promelas) (similar substance)	No information available	EC50 (48h) 1.17 mg/L (Daphnia magna) (similar substance) LC50 (96h) 232.5 mg/L (Acartia tonsa) NOEC (21d) 0.37 mg/L (Daphnia magna) (similar substance)
Isopropanol	67-63-0	EC50 (72h) > 1000 mg/L (Desmodesmus subspicatus) EC50 (7d) 1800 mg/L (meanextinction value)(Scenedesmus quadricauda)	LC50 (96h) 9640 mg/L (Pimephales promelas) LC50 (7d) 7060 mg/L (Poecilia reticulata)	TT (16h) 1050 mg/L (Pseudomonas putida)	EC50 (48 h)=2285 mg/L (Daphnia sp.) EC50 (24h) > 10,000 mg/L (Daphnia magna)
Ammonium ether sulfate	Proprietary	EC50 (5d) 101 mg/L (Selenastrum capricornutum) (similar substance)	NOEC (28d) 0.12 mg/L (Oncorhynchus mykiss) (similar substance)	EC50 (3h) > 1600 mg/L (similar substance)	EC50 (48h) 3.43 mg/L (Ceriodaphnia dubia) (similar substance) EC50 (24h) 21 mg/L (Daphnia magna) (similar substance) EC50 (96h) 5.7 mg/L (Daphnia magna) (similar substance) NOEC (7d) 0.34 mg/L (Ceriodaphnia dubia) (similar substance) NOEC (21d) 16.5 mg/L (Daphnia magna) (similar substance) NOEC (7d) 6.3 mg/L (Ceriodaphnia dubia) (similar substance)
Ethanol	64-17-5	No information available	LC50 > 100 mg/L (Pimephales promelas)	No information available	LC50 9268 - 14,221 mg/L (Daphnia magna) LC50 5012 mg/L (Ceriodaphnia dubia) NOEC 9.6 mg/L (Daphnia magna)
Ammonium salt	Proprietary	ErC50 (72h) 27 mg/L (Desmodesmus subspicatus) (similar substance)	LC50 (96h) 2.8 mg/L (Danio rerio) (similar substance)	No information available	EC50 (24h) 23 mg/L (Daphnia magna) (similar substance)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Readily biodegradable
Isopropanol	67-63-0	Readily biodegradable (53% @ 5d)
Ammonium ether sulfate	Proprietary	Readily biodegradable (similar substances)
Ethanol	64-17-5	No information available
Ammonium salt	Proprietary	(96% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Log Pow = 0.7
Isopropanol	67-63-0	LogPow < 4.5
Ammonium ether sulfate	Proprietary	No information available
Ethanol	64-17-5	-0.32

Ammonium salt	Proprietary	Log Kow = 3.42
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12.4. Mobility in soil

Substances	CAS Number	Mobility
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	No information available
Isopropanol	67-63-0	No information available
Ammonium ether sulfate	Proprietary	No information available
Ethanol	64-17-5	No information available
Ammonium salt	Proprietary	No information available

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

Disposal methods 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 UN1993
UN proper shipping name: Flammable Liquid, N.O.S. (Contains Isopropanol, Ethanol)
Transport Hazard Class(es): 3
Packing Group: III
Environmental Hazards: Not applicable

US DOT

UN Number UN1993
UN proper shipping name: Flammable Liquid, N.O.S. (Contains Isopropanol, Ethanol)
Transport Hazard Class(es): 3
Packing Group: III
Environmental Hazards: Not applicable
Not Restricted when shipped in containers less than 119 gallons as authorized by 49 CFR 173.150(e)(1) and 49 CFR 173.150(f)(2).

IMDG/IMO

UN Number UN1993
UN proper shipping name: Flammable Liquid, N.O.S. (Contains Isopropanol, Ethanol)
Transport Hazard Class(es): 3
Packing Group: III
Environmental Hazards: Not applicable

IATA/ICAO

UN Number UN1993
UN proper shipping name: Flammable Liquid, N.O.S. (Contains Isopropanol, Ethanol)
Transport Hazard Class(es): 3
Packing Group: III
Environmental Hazards: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable
Special Precautions for User None

15. Regulatory Information

Canadian Regulations

Canadian Domestic Substances List (DSL) All components listed on inventory or are exempt.

US Regulations

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

TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable
Isopropanol	67-63-0	Not applicable
Ammonium ether sulfate	Proprietary	Not applicable
Ethanol	64-17-5	Not applicable
Ammonium salt	Proprietary	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable
Isopropanol	67-63-0	Not applicable
Ammonium ether sulfate	Proprietary	Not applicable
Ethanol	64-17-5	Not applicable
Ammonium salt	Proprietary	Not applicable

EPA SARA (311,312) Hazard Class

Flammable (gases, aerosols, liquids, or solids)
 Skin Corrosion or Irritation
 Serious eye damage or eye irritation

EPA SARA (313) Chemicals

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable	Not applicable
Isopropanol	67-63-0	1.0%	Not applicable
Ammonium ether sulfate	Proprietary	Not applicable	Not applicable
Ethanol	64-17-5	Not applicable	Not applicable
Ammonium salt	Proprietary	Not applicable	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Ammonium Salt of Ethoxylated Alcohol Sulfate	Proprietary	Not applicable
Isopropanol	67-63-0	Not applicable
Ammonium ether sulfate	Proprietary	Not applicable
Ethanol	64-17-5	Not applicable
Ammonium salt	Proprietary	Not applicable

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:

Ignitability D001

16. Other information

Preparation Information

Prepared By Chemical Stewardship

Telephone: 1-281-871-6107
e-mail: fdunexchem@halliburton.com

Revision Date: 11-Aug-2020

Reason for Revision Initial Release

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 Stewardship at 1-580-251-4335.

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight
CAS – Chemical Abstracts Service
EC50 – Effective Concentration 50%
ErC50 – Effective Concentration growth rate 50%
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL50 – Lethal Loading 50%
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PEL – Permissible Exposure Limit
ppm – parts per million
STEL – Short Term Exposure Limit
TWA – Time-Weighted Average
UN – United Nations
h - hour
mg/m³ - milligram/cubic meter
mm - millimeter
mmHg - millimeter mercury
w/w - weight/weight
d - day

Key literature references and sources for data

www.ChemADVISOR.com/

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End of Safety Data Sheet