

SAFETY DATA SHEET

Product Trade Name: **BARA-DEFOAM® W300**

Revision Date: 23-Apr-2015

Revision Number: 33

1. Identification

1.1. Product Identifier

Product Trade Name: BARA-DEFOAM® W300
Synonyms: None
Chemical Family: Blend
Internal ID Code HM003505

1.2 Recommended use and restrictions on use

Application: Defoamer
Uses Advised Against No information available

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier Baroid Fluid Services
Product Service Line of Halliburton
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4000
Emergency Telephone: (281) 575-5000

Prepared By Chemical Stewardship
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number

Emergency Telephone Number (281) 575-5000

2. Hazard(s) Identification

2.1 Classification in accordance with paragraph (d) of §1910.1200

Serious Eye Damage / Eye Irritation	Category 1 - H318
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H336
Acute Aquatic Toxicity	Acute 3 - H402
Flammable liquids.	Category 4 - H227

2.2. Label Elements

Hazard Pictograms



Signal Word

Danger

Hazard Statements
 H227 - Combustible liquid
 H318 - Causes serious eye damage
 H336 - May cause drowsiness or dizziness
 H402 - Harmful to aquatic life

Precautionary Statements

Prevention
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P273 - Avoid release to the environment
 P280 - Wear eye protection/face protection

Response
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 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 water spray for extinction

Storage
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up

Disposal
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains

Substances	CAS Number
Hydrotreated light petroleum distillate	64742-47-8
Sulfated fatty acid ester	Proprietary
Sulfated fatty acid ester salt	Proprietary
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4

2.3 Hazards not otherwise classified

None known

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Hydrotreated light petroleum distillate	64742-47-8	30 - 60%	STOT SE 3 (H336) Asp. Tox. 1 (H304)
Sulfated fatty acid ester	Proprietary	10 - 30%	Eye Corr. 1 (H318) Aquatic Acute 3 (H402)
Sulfated fatty acid ester salt	Proprietary	1 - 5%	Eye Corr. 1 (H318) Aquatic Acute 3 (H402)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	10 - 30%	Eye Irrit. 2B (H320) Aquatic Acute 3 (H402)

The specific chemical identity of the composition has been withheld as proprietary. The exact percentage (concentration) of the composition has been withheld as proprietary.

4. First-Aid Measures

4.1. Description of first aid measures

Inhalation	If inhaled, move victim to fresh air and seek medical attention.
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. Remove contaminated clothing and launder before reuse.
Ingestion	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

4.2 Most important symptoms/effects, acute and delayed

Causes severe eye irritation which may damage tissue. May cause headache, dizziness, and other central nervous system effects.

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

None known.

5.2 Specific hazards arising from the substance or mixture

Special Exposure Hazards

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases. Runoff to sewer may cause fire or explosion hazard.

5.3 Special protective equipment and precautions for fire-fighters

Special Protective Equipment for Fire-Fighters

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

Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas. 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

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

7. Handling and storage

7.1. Precautions for Safe Handling

Handling Precautions

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

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Store away from oxidizers. Keep container closed when not in use. Product has a shelf life of 36 months.

8. Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable
Sulfated fatty acid ester	Proprietary	Not applicable	Not applicable
Sulfated fatty acid ester salt	Proprietary	Not applicable	Not applicable
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Not applicable	Not applicable

8.2 Appropriate engineering controls

Engineering Controls Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

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 Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Neoprene gloves. Butyl rubber gloves. (>= 0.65 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

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

9.1. Information on basic physical and chemical properties

Physical State: Liquid	Color:	Clear amber
Odor: Mineral oil	Odor	No information available
	Threshold:	

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	5 - 8.5
Freezing Point/Range	< -17.8 °C / < 0 °F
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	> 77 °C / > 170.6 °F PMCC
Flammability (solid, gas)	No data available
upper flammability limit	5%
lower flammability limit	0.6%
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	0.872
Water Solubility	Insoluble 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
Oxides of sulfur. Carbon monoxide and carbon dioxide. Hydrocarbons.

11. Toxicological Information

11.1 Information on likely routes of exposure
Principle Route of Exposure Eye or skin contact, inhalation.

11.2 Symptoms related to the physical, chemical and toxicological characteristics
Acute Toxicity

Inhalation May cause mild respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact Causes severe eye irritation which may damage tissue.
Skin Contact May cause skin defatting with prolonged exposure. May cause mild 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
Hydrotreated light petroleum distillate	64742-47-8	> 5000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	> 5.28 mg/L (Rat) 4h (similar substance)
Sulfated fatty acid ester	Proprietary	>2000 mg/kg (Rat) (similar substance)	>2000 mg/kg (Rat) (similar substance)	No data available
Sulfated fatty acid ester salt	Proprietary	> 2000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rat) (similar substance)	No data available
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	3200 mg/kg (Rat) 6500 mg/kg (Rat)	> 15,200 mg/kg (Rabbit)	> Sat. Conc. (Rat)

Substances	CAS Number	Skin corrosion/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to the skin (similar substances)
Sulfated fatty acid ester		Non-irritating to the skin (similar substances)
Sulfated fatty acid ester salt		Non-irritating to the skin (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Skin, rabbit: Causes mild skin irritation

Substances	CAS Number	Eye damage/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to rabbit's eye
Sulfated fatty acid ester		Eye, rabbit: Causes severe eye irritation which may damage tissue. (similar substances)
Sulfated fatty acid ester salt		Causes severe eye irritation which may damage tissue. (Rabbit) (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Eye, rabbit: Causes mild eye irritation.

Substances	CAS Number	Skin Sensitization
Hydrotreated light petroleum distillate	64742-47-8	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Sulfated fatty acid ester		Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Sulfated fatty acid ester salt		Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Hydrotreated light petroleum distillate	64742-47-8	No information available
Sulfated fatty acid ester		No information available
Sulfated fatty acid ester salt		No information available
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	No information available

Substances	CAS Number	Mutagenic Effects
Hydrotreated light petroleum distillate	64742-47-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)

Sulfated fatty acid ester		In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Sulfated fatty acid ester salt		In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Hydrotreated light petroleum distillate	64742-47-8	Did not show carcinogenic effects in animal experiments
Sulfated fatty acid ester		No information available.
Sulfated fatty acid ester salt		No information available.
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	No information available.

Substances	CAS Number	Reproductive toxicity
Hydrotreated light petroleum distillate	64742-47-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Sulfated fatty acid ester		Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Sulfated fatty acid ester salt		Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility.

Substances	CAS Number	STOT - single exposure
Hydrotreated light petroleum distillate	64742-47-8	May cause disorder and damage to the Central Nervous System (CNS) (similar substances)
Sulfated fatty acid ester		No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Sulfated fatty acid ester salt		No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Sulfated fatty acid ester		No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Sulfated fatty acid ester salt		No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Hydrotreated light petroleum distillate	64742-47-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Sulfated fatty acid ester		Not applicable
Sulfated fatty acid ester salt		Not applicable
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	Not applicable

12. Ecological Information

12.1. Toxicity
Ecotoxicity 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
Hydrotreated light petroleum distillate	64742-47-8	EC50 (72h) > 1,000 mg/L (Skeletonema costatum) ErL50 (72h) > 1000 mg/L (Pseudokirchneriella subcapitata) EbL50 (72h) > 1000 mg/L (Pseudokirchneriella subcapitata) NOELR (72h) 1000 mg/L (Pseudokirchneriella subcapitata)	LC50 (96h) > 10,000 mg/L (Scophthalmus maximus) LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss)	No information available	LC50 (48h) > 10,000 mg/L (Acartia tonsa) EC50 (48h) 1100 mg/L (Daphnia pulex) LC50 (48h) 0.12 mg/L (Daphnia magna) EL50 (48h) > 1000 mg/L (Daphnia magna)
Sulfated fatty acid ester	Proprietary	EC50 972h) 70.4 mg/L (Desmodesmus subspicatus) (similar substance)	LC50 (96h) >100 mg/L (Danio rerio) (similar substance)	EC0 (28d) 15 mg/L (Activated sludge, domestic) (similar substance)	EC50 (48h) 32.3 mg/L (Daphnia magna) (similar substance)
Sulfated fatty acid ester salt	Proprietary	EC50 (72h) 70.4 mg/L (Desmodesmus subspicatus) (similar substance) NOEC (72h) 3.16 mg/L (Desmodesmus subspicatus) (similar substance)	LC50 (96h) > 100 mg/L (Danio rerio) (similar substance)	EC0 (28d) 15 mg/L (Activated sludge) (similar substance)	EC50 (48h) 32.3 mg/L (Daphnia magna) (similar substance)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	ErC50 (72h) 15 mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) 33 mg/L (Pimephales promelas)	No information available	EC50 (48h) 147.8 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Hydrotreated light petroleum distillate	64742-47-8	Readily biodegradable (40% @ 28d)
Sulfated fatty acid ester	Proprietary	(61% @ 28d)
Sulfated fatty acid ester salt	Proprietary	Readily biodegradable (61% @ 28d) (similar substances)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	(77% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Hydrotreated light petroleum distillate	64742-47-8	No information available
Sulfated fatty acid ester	Proprietary	0.51
Sulfated fatty acid ester salt	Proprietary	BCF = 70.87 L/kg ww (calculated) (similar substance)
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	3.2 BCF = 44.1

12.4. Mobility in soil

Substances	Mobility
Hydrotreated light petroleum distillate	No information available
Sulfated fatty acid ester	No information available
Sulfated fatty acid ester salt	No information available
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	KOC = 29.38-630

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

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

US DOT

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

US DOT Bulk

DOT (Bulk) Not applicable

Canadian TDG

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IMDG/IMO

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IATA/ICAO

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
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

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 does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

EPA CERCLA/Superfund Reportable Spill Quantity	Not applicable.
EPA RCRA Hazardous Waste Classification	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65	All components listed do not apply to the California Proposition 65 Regulation.
MA Right-to-Know Law	Does not apply.
NJ Right-to-Know Law	Does not apply.
PA Right-to-Know Law	Does not apply.
Canadian Regulations	
Canadian DSL Inventory	Product contains one or more components not listed on the inventory.

16. Other information

Preparation Information

Prepared By	Chemical Stewardship Telephone: 1-580-251-4335 e-mail: fdunexchem@halliburton.com
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Revision Date:	23-Apr-2015
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Reason for Revision	SDS sections updated: 2 11
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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

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