

## SAFETY DATA SHEET

### BAROID ALKANE

Product Trade Name:

Revision Date: 27-Mar-2015

Revision Number: 11

### 1. Identification

#### 1.1. Product Identifier

Product Trade Name: BAROID ALKANE  
Synonyms: None  
Chemical Family: Paraffin  
Internal ID Code: HM005456

#### 1.2 Recommended use and restrictions on use

Application: Base Fluid  
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

Aspiration Category	Category 1 - H304
Flammable liquids.	Category 4 - H227

#### 2.2. Label Elements

##### Hazard Pictograms



Signal Word

Danger

**Hazard Statements** H227 - Combustible liquid  
H304 - May be fatal if swallowed and enters airways

### Precautionary Statements

**Prevention** P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response** P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P331 - Do NOT induce vomiting  
P370 + P378 - In case of fire: Use water spray for extinction

**Storage** P405 - Store locked up  
P403 + P235 - Store in a well-ventilated place. Keep cool

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

### Contains

#### Substances

Paraffins, petroleum, normal C>10  
Mineral oil

#### CAS Number

64771-71-7  
8042-47-5

### 2.3 Hazards not otherwise classified

None known

## 3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Paraffins, petroleum, normal C>10	64771-71-7	60 - 100%	Asp. Tox. 1 (H304) Flam. Liq. 4 (H227)
Mineral oil	8042-47-5	10 - 30%	Asp. Tox. 1 (H304)

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** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Skin** Wash with soap and water. Get medical attention if irritation persists.

**Ingestion** Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

### 4.2 Most important symptoms/effects, acute and delayed

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

### 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**

Decomposition in fire may produce toxic gases.

**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.

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.

**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
Paraffins, petroleum, normal C>10	64771-71-7	5 mg/m <sup>3</sup>	Not applicable
Mineral oil	8042-47-5	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>

**8.2 Appropriate engineering controls****Engineering Controls**

Use in a well ventilated area.

**8.3 Individual protection measures, such as personal protective equipment**

<b>Personal Protective Equipment</b>	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.
<b>Respiratory Protection</b>	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.
<b>Hand Protection</b>	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): Nitrile gloves. (>= 0.4 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.
<b>Skin Protection</b>	Normal work coveralls.
<b>Eye Protection</b>	Chemical goggles; also wear a face shield if splashing hazard exists.
<b>Other Precautions</b>	Eyewash fountains and safety showers must be easily accessible.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State:</b> Liquid	<b>Color:</b> Colorless
<b>Odor:</b> Paraffinic	<b>Odor:</b> No information available
	<b>Threshold:</b>

Property	Values
Remarks/ - Method	
<b>pH:</b>	No data available
<b>Freezing Point/Range</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	210 - 330 °C / 410 - 626 °F
<b>Flash Point</b>	> 75 °C / > 167 °F PMCC
<b>Flammability (solid, gas)</b>	No data available
upper flammability limit	No data available
lower flammability limit	No data available
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	< 1 mmHg
<b>Vapor Density</b>	> 3 (air = 1)
<b>Specific Gravity</b>	0.77
<b>Water Solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	> 100 °C / > 212 °F
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	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**

None anticipated

**10.5. Incompatible Materials**

Strong oxidizers.

**10.6. Hazardous Decomposition Products**

Hydrocarbons. Carbon monoxide and carbon dioxide.

**11. Toxicological Information****11.1 Information on likely routes of exposure****Principle Route of Exposure** Eye and skin contact.**11.2 Symptoms related to the physical, chemical and toxicological characteristics****Acute Toxicity****Inhalation**

Inhalation of mist or heated vapors may cause respiratory irritation.

**Eye Contact**

May cause mild eye irritation.

**Skin Contact**

Causes drying of the skin. Prolonged or repeated contact may cause slight skin irritation.

**Ingestion**

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

**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
Paraffins, petroleum, normal C>10	64771-71-7	> 5000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	> 1369 ppm (Rat, 4h, vapor) (saturation)
Mineral oil	8042-47-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5 mg/L (Rat) 4h

Substances	CAS Number	Skin corrosion/irritation
Paraffins, petroleum, normal C>10	64771-71-7	Non-irritating to the skin (Rabbit) (similar substances)
Mineral oil	8042-47-5	Non-irritating to the skin (Rabbit)

Substances	CAS Number	Eye damage/irritation
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Paraffins, petroleum, normal C>10	64771-71-7	Non-irritating to the eye (Rabbit) (similar substances)
Mineral oil	8042-47-5	Non-irritating to the eye (Rabbit)

Substances	CAS Number	Skin Sensitization
Paraffins, petroleum, normal C>10	64771-71-7	Did not cause sensitization on humans or laboratory animals. (guinea pig) (similar substances)
Mineral oil	8042-47-5	Did not cause sensitization on humans or laboratory animals. (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Paraffins, petroleum, normal C>10	64771-71-7	No information available
Mineral oil	8042-47-5	No information available

Substances	CAS Number	Mutagenic Effects
Paraffins, petroleum, normal C>10	64771-71-7	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Mineral oil	8042-47-5	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)

Substances	CAS Number	Carcinogenic Effects
Paraffins, petroleum, normal C>10	64771-71-7	Not regarded as carcinogenic. (similar substances)
Mineral oil	8042-47-5	Not regarded as carcinogenic.

Substances	CAS Number	Reproductive toxicity
Paraffins, petroleum, normal C>10	64771-71-7	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Mineral oil	8042-47-5	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Paraffins, petroleum, normal C>10	64771-71-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Mineral oil	8042-47-5	No information available.

Substances	CAS Number	STOT - repeated exposure
Paraffins, petroleum, normal C>10	64771-71-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Mineral oil	8042-47-5	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Paraffins, petroleum, normal C>10	64771-71-7	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Mineral oil	8042-47-5	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

## 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

Paraffins, petroleum, normal C>10	64771-71-7	EL50 (72h) > 10000 mg/L (Skeletonema costatum) (similar substance)	LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss) (similar substance) LL50 (96h) > 1028 mg/L (Scophthalmus maximus) (similar substance)	No information available	EL50 (48h) > 1000 mg/L (Daphnia Magna) (similar substance) EL50 (48h) > 1000 mg/L (Chaetogammarus marinus) (similar substance) EL50 (48h) > 10000 mg/L (Arcartia tonsa) (similar substance)
Mineral oil	8042-47-5	NOEL (72h) > 100 mg/L (Pseudokirchnerella subcapitata)	LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss)	No information available	LL50 (48h) > 100 mg/L (Daphnia magna)

## 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Paraffins, petroleum, normal C>10	64771-71-7	Readily biodegradable (80% @ 28d)
Mineral oil	8042-47-5	No information available

## 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Paraffins, petroleum, normal C>10	64771-71-7	> 7.1
Mineral oil	8042-47-5	> 6

## 12.4. Mobility in soil

Substances	CAS Number	Mobility
Paraffins, petroleum, normal C>10	64771-71-7	No information available
Mineral oil	8042-47-5	No information available

## 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)** NA1993, Combustible Liquid, N.O.S. (Contains Petroleum Hydrocarbons), Combustible Liquid, III

### 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

<b>15. Regulatory Information</b>
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**US Regulations**

<b>US TSCA Inventory</b>	All components listed on inventory or are exempt.
<b>EPA SARA Title III Extremely Hazardous Substances</b>	Not applicable
<b>EPA SARA (311,312) Hazard Class</b>	Acute Health Hazard Fire Hazard
<b>EPA SARA (313) Chemicals</b>	This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).
<b>EPA CERCLA/Superfund Reportable Spill Quantity</b>	Not applicable.
<b>EPA RCRA Hazardous Waste Classification</b>	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
<b>California Proposition 65</b>	All components listed do not apply to the California Proposition 65 Regulation.
<b>MA Right-to-Know Law</b>	Does not apply.
<b>NJ Right-to-Know Law</b>	Does not apply.
<b>PA Right-to-Know Law</b>	Does not apply.

**Canadian Regulations**

**Canadian DSL Inventory** All components listed on inventory or are exempt.

**16. Other information****Preparation Information**

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

**Revision Date:** 27-Mar-2015

**Reason for Revision** Update to Format  
SECTION:  
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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/m<sup>3</sup> - milligram/cubic meter  
mm - millimeter  
mmHg - millimeter mercury  
w/w - weight/weight  
d - day

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

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**End of Safety Data Sheet**