

**SAFETY DATA SHEET****Product Trade Name:** BARAFOS®

Revision Date: 05-Mar-2015

Revision Number: 13

**1. Identification****1.1. Product Identifier**

**Product Trade Name:** BARAFOS®  
**Synonyms:** None  
**Chemical Family:** Phosphate salt  
**Internal ID Code** HM003509

**1.2 Recommended use and restrictions on use**

**Application:** Thinner  
**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 2B - H320
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**2.2. Label Elements****Hazard Pictograms**

**Signal Word** Warning

**Hazard Statements** H320 - Causes mild eye irritation

**Precautionary Statements**

**Prevention** P264 - Wash face, hands and any exposed skin thoroughly after handling

<b>Response</b>	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313 - If eye irritation persists: Get medical advice/attention
<b>Storage</b>	None
<b>Disposal</b>	None
<b>Contains Substances</b> Sodium tripolyphosphate	<b>CAS Number</b> 7758-29-4

### **2.3 Hazards not otherwise classified**

None known

### **3. Composition/information on Ingredients**

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Sodium tripolyphosphate	7758-29-4	60 - 100%	Eye Irrit. 2B (H320)

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

### **4. First-Aid Measures**

#### **4.1. Description of first aid measures**

<b>Inhalation</b>	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
<b>Eyes</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
<b>Skin</b>	Wash with soap and water. Get medical attention if irritation persists.
<b>Ingestion</b>	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

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

May cause mild eye 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**

All standard fire fighting media

##### **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. Avoid creating and breathing dust.

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

Scoop up and remove.

## 7. Handling and storage

### 7.1. Precautions for Safe Handling

#### Handling Precautions

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust.

#### 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 dry location. 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
Sodium tripolyphosphate	7758-29-4	Not applicable	Not applicable

### 8.2 Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

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

Dust/mist respirator. (N95, P2/P3)

Normal work gloves.

Normal work coveralls.

**Eye Protection** Wear safety glasses or goggles to protect against exposure.

**Hand Protection** None known.

**Skin Protection**

**Other Precautions**

## 9. Physical and Chemical Properties

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

**Physical State:** Powder

**Color:**

White

**Odor:** Odorless

**Odor**

No information available

**Threshold:**

<u>Property</u>	<u>Values</u>
Remarks/ - Method	
<b>pH:</b>	8.4-9.2 (1%)
<b>Freezing Point/Range</b>	No information available.
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Flash Point</b>	No data available
<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>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	1.9
<b>Water Solubility</b>	Soluble in water (15g/100mL)
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<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

<b>VOC Content (%)</b>	No data available
<b>Bulk Density</b>	34-40 lbs/ft3

## **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**

None known.

### **10.6. Hazardous Decomposition Products**

Oxides of phosphorus. Oxides of sulfur.

## **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**

<b>Inhalation</b>	None known.
<b>Eye Contact</b>	May cause mild eye irritation.
<b>Skin Contact</b>	Prolonged or repeated contact may cause slight skin irritation.
<b>Ingestion</b>	None known

**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**

<b>Substances</b>	<b>CAS Number</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
Sodium tripolyphosphate	7758-29-4	3100 mg/kg (Rat) 2300 mg/kg (Rat)	7940 mg/kg (Rabbit) >4640 mg/kg (Rabbit)	>0.39 mg/L (Rat) (highest concentration)

<b>Substances</b>	<b>CAS Number</b>	<b>Skin corrosion/irritation</b>
Sodium tripolyphosphate	7758-29-4	Not irritating to skin in rabbits.

<b>Substances</b>	<b>CAS Number</b>	<b>Eye damage/irritation</b>
Sodium tripolyphosphate	7758-29-4	Eye, rabbit: Causes mild eye irritation.

<b>Substances</b>	<b>CAS Number</b>	<b>Skin Sensitization</b>
Sodium tripolyphosphate	7758-29-4	Did not cause sensitization on humans or laboratory animals. (guinea pig) (mouse)

<b>Substances</b>	<b>CAS Number</b>	<b>Respiratory Sensitization</b>
Sodium tripolyphosphate	7758-29-4	No information available

<b>Substances</b>	<b>CAS Number</b>	<b>Mutagenic Effects</b>
Sodium tripolyphosphate	7758-29-4	Did not show mutagenic effects in animal experiments In vitro tests did not show mutagenic effects

<b>Substances</b>	<b>CAS Number</b>	<b>Carcinogenic Effects</b>
Sodium tripolyphosphate	7758-29-4	Did not show carcinogenic effects in animal experiments (Rat)

<b>Substances</b>	<b>CAS Number</b>	<b>Reproductive toxicity</b>
Sodium tripolyphosphate	7758-29-4	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

<b>Substances</b>	<b>CAS Number</b>	<b>STOT - single exposure</b>
Sodium tripolyphosphate	7758-29-4	No significant toxicity observed in animal studies at concentration requiring classification.

<b>Substances</b>	<b>CAS Number</b>	<b>STOT - repeated exposure</b>
Sodium tripolyphosphate	7758-29-4	No data of sufficient quality are available.

<b>Substances</b>	<b>CAS Number</b>	<b>Aspiration hazard</b>
Sodium tripolyphosphate	7758-29-4	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
Sodium tripolyphosphate	7758-29-4	EC50 (96h) 160 mg/L (Desmodesmus subspicatus)	TLM96 100-500 ppm (Oncorhynchus mykiss) LC50 (24h) >1850 mg/L (Danio rerio) LOEC (96h) 5 mg/L (Danio rerio)	No information available	TLM96 >100 mg/l (Daphnia magna) EC50 (48h) >100 mg/L (Daphnia magna) LOEC (96h) 5 mg/L (Danio rerio) NOEC (24h) <15 mg/L (Helisoma duryi) NOEC (24h) <15 mg/L (Rangia cuneata)

## 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Sodium tripolyphosphate	7758-29-4	The methods for determining biodegradability are not applicable to inorganic substances.

## 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Sodium tripolyphosphate	7758-29-4	No information available

## 12.4. Mobility in soil

Substances	Mobility
Sodium tripolyphosphate	KOC = 142.44

## 12.5 Other adverse effects

No information available

## 13. Disposal Considerations

### 13.1. Waste treatment methods

**Disposal Method** Bury in a licensed landfill according to 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**

<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
<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>	EPA Reportable Spill Quantity is 5000 Pounds based on Sodium phosphate, tribasic (CAS: 7758-29-4).
<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.
<b>Canadian Regulations</b>	
<b>Canadian DSL Inventory</b>	All components listed on inventory or are exempt.

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

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**Revision Date:** 05-Mar-2015

**Reason for Revision** Update to Format SECTION: 2

**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**