

**MATERIAL SAFETY DATA SHEET****Product Trade Name:** EZ-SPOT PILL**Revision Date:** 19-Feb-2014**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Trade Name:** EZ-SPOT PILL**Synonyms:** None**Chemical Family:** Blend**Application:** Spotting fluid**Manufacturer/Supplier**

Baroid Fluid Services  
Product Service Line of Halliburton  
P.O. Box 1675  
Houston, TX 77251  
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**Prepared By**

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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
Diesel	68476-34-6	30 - 60%	TWA: 100 mg/m <sup>3</sup>	Not applicable
Barium sulfate	7727-43-7	10 - 30%	TWA: 10 mg/m <sup>3</sup>	15 mg/M3
Hydrotreated light petroleum distillate	64742-47-8	1 - 5%	Not applicable	Not applicable
Isobutanol	78-83-1	1 - 5%	TWA: 50 ppm	100 ppm
Crystalline silica, quartz	14808-60-7	0 - 1%	TWA: 0.025 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> %SiO <sub>2</sub> + 2

**3. HAZARDS IDENTIFICATION****Hazard Overview**

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed. Potential carcinogen. Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposures below recommended exposure limits. Wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Review the Material Safety Data Sheet (MSDS) for this product, which has been provided to your employer.

**4. FIRST AID MEASURES**

<b>Inhalation</b>	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.
<b>Skin</b>	Wash with soap and water. Get medical attention if irritation persists. Remove contaminated clothing and launder before reuse.
<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>Ingestion</b>	Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.
<b>Notes to Physician</b>	Not Applicable

## 5. FIRE FIGHTING MEASURES

<b>Flash Point/Range (F):</b>	Not Determined <b>Min:</b> > 150
<b>Flash Point/Range (C):</b>	Not Determined <b>Min:</b> > 65
<b>Flash Point Method:</b>	PMCC
<b>Autoignition Temperature (F):</b>	Not Determined
<b>Autoignition Temperature (C):</b>	Not Determined
<b>Flammability Limits in Air - Lower (%):</b>	Not Determined
<b>Flammability Limits in Air - Upper (%):</b>	Not Determined
<b>Fire Extinguishing Media</b>	Water fog, carbon dioxide, foam, dry chemical.
<b>Special Exposure Hazards</b>	Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases.
<b>Special Protective Equipment for Fire-Fighters</b>	Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.
<b>NFPA Ratings:</b>	Health 1, Flammability 2, Reactivity 0
<b>HMIS Ratings:</b>	Health 1*, Flammability 2, Physical Hazard 0 , PPE: J

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautionary Measures</b>	Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.
<b>Environmental Precautionary Measures</b>	Prevent from entering sewers, waterways, or low areas.
<b>Procedure for Cleaning / Absorption</b>	Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

## 7. HANDLING AND STORAGE

<b>Handling Precautions</b>	This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet.
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**Storage Information**

Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Controls**

Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.

**Respiratory Protection**

Wear a NIOSH certified, European Standard EN 149 (FFP2/FFP3), AS/NZS 1715:2009, or equivalent respirator when using this product. Positive pressure self-contained breathing apparatus in enclosed areas.

**Hand Protection**

Impervious rubber gloves.

**Skin Protection**

Rubber apron. Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

**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****Physical State:**

Liquid

**Color:**

Brown

**Odor:**

Diesel

**pH:**

Not Determined

**Specific Gravity @ 20 C (Water=1):**

Not Determined

**Density @ 20 C (lbs./gallon):**

Not Determined

**Bulk Density @ 20 C (lbs/ft3):**

Not Determined

**Boiling Point/Range (F):**

Not Determined

**Boiling Point/Range (C):**

Not Determined

**Freezing Point/Range (F):**

Not Determined

**Freezing Point/Range (C):**

Not Determined

**Vapor Pressure @ 20 C (mmHg):**

Not Determined

**Vapor Density (Air=1):**

Not Determined

**Percent Volatiles:**

Not Determined

**Evaporation Rate (Butyl Acetate=1):**

Not Determined

**Solubility in Water (g/100ml):**

Insoluble

**Solubility in Solvents (g/100ml):**

Not Determined

**VOCs (lbs./gallon):**

Not Determined

**Viscosity, Dynamic @ 20 C (centipoise):**

Not Determined

**Viscosity, Kinematic @ 20 C (centistokes):**

Not Determined

**Partition Coefficient/n-Octanol/Water:**

Not Determined

**Molecular Weight (g/mole):**

Not Determined

**10. STABILITY AND REACTIVITY****Stability Data:**

Stable

**Hazardous Polymerization:**

Will Not Occur

**Conditions to Avoid**

Keep away from heat, sparks and flame.

**Incompatibility (Materials to Avoid)**

Strong oxidizers.

**Hazardous Decomposition Products** Oxides of nitrogen. Carbon monoxide and carbon dioxide.

**Additional Guidelines** Not Applicable

## 11. TOXICOLOGICAL INFORMATION

**Principle Route of Exposure** Eye or skin contact, inhalation.

### Symptoms related to exposure

#### **Acute Toxicity**

##### **Inhalation**

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

Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A).

Breathing silica dust may cause irritation of the nose, throat, and respiratory passages. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

##### **Eye Contact**

May cause eye irritation

##### **Skin Contact**

May cause skin irritation.

##### **Ingestion**

May produce nervous system effects such as feeling of weakness, unsteady walk, and dilation of blood vessels. May affect the heart and cardiovascular system. 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**

Prolonged or repeated application of a similar product to the skin of laboratory mice without washing between applications resulted in increased incidence of skin tumors. It is suspected that tumors may be due in part to severely irritated conditions from continuous contact with the product. Limited studies on oils that are very active carcinogens have shown washing the animals' skin with soap and water between applications greatly decreases the incidence of tumors. In light of these studies, good personal hygiene is essential with the use of this product. Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

### **Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Diesel	68476-34-6	No data available	No data available	No data available
Barium sulfate	7727-43-7	> 307,000 mg/kg > 2000mg/kg (similar substance - barium dichloride)	> 2,000 mg/kg	0.4 mg/L
Hydrotreated light petroleum distillate	64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	5.28 mg/L (Rat) 4h
Isobutanol	78-83-1	2460 mg/kg (Rat) 3350 mg/kg (Rat) > 2830 mg/kg (Rat)	> 2000 mg/kg (Rabbit) 3392 mg/kg (Rabbit)	6.5 mg/L (Rat) 4h 24.6 mg/L (Rat) 4h 19.6 mg/L (Rat) 4h
Crystalline silica, quartz	14808-60-7	500 mg/kg (Rat)	No data available	No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological Information

#### Ecotoxicity Product

Acute Fish Toxicity:	Not determined
Acute Crustaceans Toxicity:	Not determined
Acute Algae Toxicity:	Not determined

#### Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Diesel	68476-34-6	No information available	LC50: 35 mg/l (Pimephales promelas)	No information available	No information available
Barium sulfate	7727-43-7	EC50(72h): (growth rate) > 1.92 mg/L (Pseudokirchnerella subcapitata) EC50(72h): > 34.31 mg/L (Pseudokirchnerella subcapitata) (elemental Barium)	TLM96: 7500 ppm (Oncorhynchus mykiss) LC50(96h): > 97.5 mg/L (Danio rerio) LC50(96h): > 97.5 mg/L (Danio rerio) (elemental Barium) LC50(28d): 42700 ug/L (Oncorhynchus mykiss) (elemental Barium)	EC50(3h): (respiration rate) >1000 mg/L (activated sludge)	TLM96: > 1,000,000 ppm (Mysidopsis bahia) LC50(48h): 14500 ug/L (Daphnia magna) (elemental Barium) EC16(3wk): 5800 ug/L (Daphnia magna) (elemental Barium)
Hydrotreated light petroleum distillate	64742-47-8	EC50(72h): > 10,000 mg/L (Skeletonema costatum) (ISO 10253)	LC50 96h): > 10,000 mg/L (Scophthalmus maximus) (OSPARCOM 1995)	No information available	LC50(48h): > 10,000 mg/L (Acartia tonsa) (ISO 14669) EC50(48h): 1100 mg/L (mobility) (Daphnia pulex)
Isobutanol	78-83-1	EC50: 230 mg/L (Desmodesmus subspicatus) EC50(72h): 1799 mg/L (Pseudokirchnerella subcapitata)	LC50(96h): 1370 - 1670 mg/l (Pimephales promelas) LD50(96h): 1430 mg/L (Pimephales promelas)	TGK(16h): 280 mg/L (growth inhibition) (Pseudomonas putida)	EC50: 1070 - 1933 mg/L (Daphnia magna)
Crystalline silica, quartz	14808-60-7	EC50(72h): 89 mg/L (biomass) (Scenedesmus subspicatus) (similar substance)	LC50(96h): 508 mg/L (Danio rerio) (similar substance)	No information available	LC50(48h): 731 mg/L (Daphnia magna) (similar substance) LC50(48h): 33.5 mg/L (Ceriodaphnia dubia) (similar substance)

#### 12.2 Persistence and degradability

No information available

Substances	Persistence and Degradability
Barium sulfate	The methods for determining biodegradability are not applicable to inorganic substances.
Hydrotreated light petroleum distillate	Readily biodegradable (87% @ 28d)
Isobutanol	Readily biodegradable (70-80% @ 28d)
Crystalline silica, quartz	The methods for determining biodegradability are not applicable to inorganic substances.

#### 12.3 Bioaccumulative potential

Substances	Log Pow
Barium sulfate	BCF 1.2 - 74.4 L/kg (Lepomis macrochirus)
Hydrotreated light petroleum distillate	7.5
Isobutanol	0.79

#### **12.4 Mobility in soil**

No information available

#### **12.5 Results of PBT and vPvB assessment**

No information available.

#### **12.6 Other adverse effects**

### **13. DISPOSAL CONSIDERATIONS**

<b>Disposal Method</b>	Disposal should be made in accordance with federal, state, and local regulations.
<b>Contaminated Packaging</b>	Follow all applicable national or local regulations.

### **14. TRANSPORT INFORMATION**

#### **Land Transportation**

##### **DOT**

Not restricted

##### **DOT (Bulk)**

NA1993, Combustible Liquid, N.O.S., Combustible Liquid, III  
(Contains Diesel, Isobutanol)

##### **Canadian TDG**

Not restricted

##### **ADR**

Not restricted

#### **Air Transportation**

##### **ICAO/IATA**

Not restricted

#### **Sea Transportation**

##### **IMDG**

Not restricted

#### **Other Transportation Information**

**Labels:** Combustible

### **15. REGULATORY INFORMATION**

#### **US Regulations**

**US TSCA Inventory** 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 Chronic 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>	The California Proposition 65 regulations apply to this product.
<b>MA Right-to-Know Law</b>	One or more components listed.
<b>NJ Right-to-Know Law</b>	One or more components listed.
<b>PA Right-to-Know Law</b>	One or more components listed.
<b>Canadian Regulations</b>	
<b>Canadian DSL Inventory</b>	All components listed on inventory or are exempt.
<b>WHMIS Hazard Class</b>	B3 Combustible Liquids D2B Toxic Materials D2A Very Toxic Materials Crystalline silica

## 16. OTHER INFORMATION

**The following sections have been revised since the last issue of this SDS**  
Not applicable

<b>Additional information</b>	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.
<b>Disclaimer Statement</b>	This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

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