



## SAFETY DATA SHEET SUN BURST DP®

### 1. Identification

**Product Name:** Sun Burst DP®  
**Effective Date:** September 28, 2015  
**Chemical Family:** Drilling Fluid Additive  
**Usage:** Friction Reducer  
**Manufacturer:** Sun Drilling Products Corp.  
503 Main Street  
Belle Chasse, LA 70037  
(504)393-2778

**Emergency phone number** CHEMTREC USA/Canada 1-800-424-9300  
Outside USA/Canada 1-703-527-3887

**Recommended restrictions** While it is unlikely during expected usage that airborne respiratory hazards will be present, workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

### 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Carcinogenicity. Category 1A  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Danger

**Hazard statement** May cause cancer.

**Precautionary statement** Eye contact may cause severe eye irritation. Prolonged and repeated exposure to excessive concentrations of this product's dust containing <0.3% quartz, or any nuisance dust, can cause chronic pulmonary disease. Long term exposure may cause silicosis. The NTP (National Toxicology Program) and IARC (International Agency for Research on Cancer) has determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure. A single exposure under normal conditions of use will not result in serious adverse effects.

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If exposed or concerned: Get medical advice/attention.

**Storage** Store in dry location.

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



**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

### 3. Composition/information on ingredients

Chemical name	CAS#	%
Polystyrene Sulphonic Acid	69011-20-7	50-60
Mixture of C16-C18 Methyl Esters from Vegetable Oils		5-15
Diatomaceous Earth, Natural	61790-53-2	0.25-0.5
Contains < 1% Silica, Quartz	14808-60-7	
Graphite	7782-42-5	1-2
Contains < 0.1% Respirable Silica, Quartz	14808-60-7	
Talcum Powder	14807-96-6	0.1-0.25
Contains < 1% Silica, Quartz	14808-60-7	

### 4. First-aid measures

**Most important symptoms/effects, acute and delayed**  
 Dusts may irritate the respiratory tract, skin and eyes.

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>General information</b>	If exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Firefighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Firefighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of
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spill/leak. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Stop the flow of material, if this is without risk. Collect dust using a vacuum cleaner equipped with HEPA filter.

**Environmental precautions**

Avoid discharge of product into drains, water courses or onto the ground.

**7. Handling and storage**

**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation for operations/locations where dust is formed. Do not breathe dust. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment.  
Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store in secure location. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

TLV: 8 hr Time Weighted Avg (TWA): 0.025 mg/m<sup>3</sup>, respirable fraction. /Silica, Crystalline - alpha-Quartz (14808-60-7, 1317-95-9); and Cristobalite (14464-46-1)

American Conference of Governmental Industrial Hygienists TLVs and BEIs. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH, 2008, p. 51

Diatomaceous Earth: OSHA PEL 5 mg/ m<sup>3</sup> Respirable Dust, 15 mg/ m<sup>3</sup> Total Dust

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

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

**Eye**

Safety glasses or protective goggles to prevent eye contact.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.



<b>Other</b>	Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust at levels exceeding the exposure limits.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid
<b>Form</b>	Coated beads
<b>Color</b>	Gray-black
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not available
<b>pH</b>	Neutral to slightly alkaline
<b>Melting point/freezing point</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	>200 °F
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Solid
<b>Upper/lower flammability or explosive limits</b>	Not available
<b>Flammability Limit – lower (%)</b>	Not available
<b>Flammability Limit – upper (%)</b>	Not available
<b>Explosive limit – lower (%)</b>	Not available
<b>Explosive limit – upper (%)</b>	Not available
<b>Vapor pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Relative Density</b>	Not available
<b>Solubility (ies)</b>	Insoluble in organic solvents and acids
<b>Solubility (water)</b>	Insoluble
<b>Partition Coefficient (n-octanol/water)</b>	Not available
<b>Auto-Ignition temperature</b>	Not available



**Decomposition temperature** Not available

**Viscosity** Not applicable

**Other Information**

**Density** 50 lbs/ft<sup>3</sup>

**Specific gravity** 1.25-1.32

**10. Stability and Reactivity**

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical Stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Contact with incompatible materials.

**Incompatible materials** Strong oxidizing agents. Phosphorus. Maleic anhydride. Nitroethane. Fluorine. Nitromethane. Nitroparaffins. Chlorine. Nitropropane

**Hazardous decomposition products** No hazardous decomposition products are known.

**11. Toxicological information**

**Information on likely routes of exposure**

**Inhalation** Dust may irritate respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Dust or powder may irritate the skin.

**Eye contact** Dust may irritate the eyes.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics**

Dusts may irritate the respiratory tract, skin and eyes.

**Information on toxicological effects**

**Acute toxicity** Not available.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/ eye irritation** Direct contact with eyes may cause severe irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the



carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Crystalline Silica (CAS 14808-60-7)	1 Carcinogenic to humans.
Diatomaceous earth, natural (CAS 61790-53-2)	3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Crystalline Silica (CAS 14808-60-7)	Known To Be Human Carcinogen.
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<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects
<b>Specific organ toxicity - Single exposure</b>	Not classified.
<b>Specific organ toxicity - Repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

<b>Ecotoxicity</b>	The product is not considered to be toxic to aquatic organisms. A 96-hr. lethal concentration for bluegill of biodiesel grade methyl esters was greater than 1000 mg/L. Lethal concentrations at these levels are generally deemed "insignificant" according to NIOSH (National Institute for Occupational Safety and Health) guidelines in its <i>Registry of the Toxic Effects of Chemical Substances</i> .
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
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<b>Local disposal regulations</b>	Dispose of in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residue. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization

#### Act of 1986 (SARA)

### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical**      No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)



Not regulated.

**Safe Drinking Water Act (SDWA)**

Not regulated.

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Crystalline Silica (CAS 14808-60-7)

**US. Massachusetts RTK - Substance List**

Crystalline Silica (CAS 14808-60-7) Diatomaceous earth, natural (CAS 61790-53-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Crystalline Silica (CAS 14808-60-7) Diatomaceous earth, natural (CAS 61790-53-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Crystalline Silica (CAS 14808-60-7) Diatomaceous earth, natural (CAS 61790-53-2)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Crystalline Silica (CAS 14808-60-7) Listed: October 1, 1988

Australia	Australian Inventory of Chemical Substances (AICS)
Canada	Domestic Substances List (DSL)
Canada	Non-Domestic Substances List (NDSL)
China	Inventory of Existing Chemical Substances in China (IECSC)
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)
Europe	European List of Notified Chemical Substances (ELINCS)
Japan	Inventory of Existing and New Chemical Substances (ENCS)
Korea	Existing Chemicals List (ECL)
New Zealand	New Zealand Inventory
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**





**Issue date** 09-28-2015 **Version #** 01

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.