



## SAFETY DATA SHEET SUN RESIFLEX™

### SECTION 1 – IDENTIFICATION

**PRODUCT NAME:** SUN RESIFLEX™  
**EFFECTIVE DATE:** April 26, 2018  
**CHEMICAL FAMILY:** Drilling Fluid Additive  
**USAGE:** Friction Reducer  
**U.S. MANUFACTURER:** SUN DRILLING PRODUCTS CORP.  
503 Main Street  
Belle Chasse, LA 70037

**CANADIAN IMPORTER :** SUN DRILLING PRODUCTS CORP.  
#102 6660 Taylor Drive  
Red Deer, AB TYP 1Y3  
(403) 341-5046 (for 24-hr Emergency call Chemtrec)

**CHEMTREC**  
**24 Hour CHEMICAL EMERGENCY – Spill, Leak, Fire, Accident**  
**USA/Canada Call 1-800 424-9300 – Outside USA/Canada Call 1-703-527-3887**

### SECTION 2 – HAZARD IDENTIFICATION

#### 2.1. Classification of the substance or mixture:

This substance is classified as hazardous as a combustible dust by the United States 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Hazardous Products Regulation (HPR) 2015. The signal word, hazard statement and precautionary statements in the United States and Canada are:

#### 2.2 Label Elements

**Classification:** Combustible Dust HPR Category 1(a)

**Signal Word:** Warning

**Hazard Statement:** May form combustible dust concentrations in air.

**Precautionary Statements:** Keep away from all ignition sources including heat, sparks and flame. No smoking. Prevent dust accumulations to minimize explosion hazard.

**GHS Classification:** Not a hazardous substance according to Regulation (EC) 1272/2008 (CLP), its various amendments and adaptations and Directive 67/548/EEC.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	PEL*
Synthetic Graphite	7440-44-0	15 mg/m <sup>3</sup> , total dust



5 mg/m<sup>3</sup>, respirable fraction

\*Table Z-1 8-hr Time Weighted Avg

**The criteria for listing components in the composition are as follows: Carcinogens are listed when present at 0.1% or greater; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or greater. Non-hazardous components may be listed at 3.0% or greater if not proprietary in nature. This is not intended to be complete compositional disclosure. Refer to section 14 for applicable states right-to-know and other regulatory information.**

### **EMERGENCY OVERVIEW**

#### **APPEARANCE/ODOR:**

Fine Gray Powder/Odorless

#### **SHORT TERM EXPOSURE**

**GENERAL:** No significant adverse health effects are expected to develop with normal use.

**EYES:** Slight to moderate mechanical irritant on direct contact.

**SKIN:** Persons with pre-existing skin disorders may experience slight mechanical irritation.

**INHALATION:** No adverse effects with normal use. Repeated or prolonged overexposure may result in respiratory symptoms, particularly in those with a pre-existing respiratory condition.

**INGESTION:** No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

**LISTED CARCINOGEN:**            **NTP RoC-** Not listed.        **IARC MONOGRAPHS** – Not classified.

### **SECTION 4 – FIRST AID MEASURES**

**EYE CONTACT** - In case of eye contact, flush immediately with water for a minimum of 15 minutes; seek medical attention if contact irritation persists.

**SKIN CONTACT** – If contact with skin results in irritation, wash thoroughly with soap and water.

**INHALATION** - If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms develop.

**INGESTION** - If swallowed, do not induce vomiting; seek immediate medical attention.

### **SECTION 5 – FIRE FIGHTING MEASURES**

**FLASHPOINT:** >200°F

**EXTINGUISHING MEDIA:** Use alcohol-resistant foam, carbon dioxide, dry chemical or water spray. A fog is recommended if water is used. DO NOT USE a solid water stream as it may scatter and spread fire. DO NOT USE high-pressure media which could cause formation of a potentially explosive dust-air mixture.

**DECOMPOSITION PRODUCTS:** Carbon Oxides. Sulphur oxides.

**LOWER FLAME LIMIT:** NA

**HIGHER FLAME LIMIT:** NA

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Product is electrically conductive. Accumulations of dust resulting from processing activities, in the presence of an ignition source, can create a potential dust explosion hazard. Good housekeeping is essential to mitigating combustible dust hazard.

**FIRE FIGHTING EQUIPMENT:** Fire Fighters and others exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.



## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**CHEMICAL EMERGENCY NUMBER (24 HOURS):** CHEMTREC  
**1-800-424-9300 USA/CANADA**  
**1-703-527-3887 Outside USA/Canada**

**SPILL:** In case of spill, if product cannot be collected and reused by sweeping or vacuuming, dispose of in accordance with applicable regulations. Minimize dust generation and accumulation. Avoid spillage into drains, surface, and ground water.

**RCRA STATUS:** Not regulated. Product as sold would be a nonhazardous, solid industrial waste.

## SECTION 7 – HANDLING AND STORAGE

Avoid contact with skin and eyes. Avoid dust formation and accumulation. Avoid creating dust clouds by sweeping or use of compressed air. Good housekeeping is essential in reducing possible slipping and combustible dust hazards.

**HANDLING AND STORAGE:** Store away from heat and sources of ignition. Take precautionary measures (bonding and grounding) against static discharges. Collect dust using a vacuum cleaner equipped with a HEPA filter. Take precautions to prevent dust accumulation on surfaces. Good housekeeping is essential to mitigating combustible dust hazard. Do not store with strong oxidizing agents. Provide sufficient general ventilation during and after application. Avoid prolonged or repeated contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking or smoking.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### **GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting protective equipment.

**EYE PROTECTION:** Use close-fitting safety glasses, goggles or safety glasses with faceshield to prevent particles from contacting eye and causing particulate irritation.

**RESPIRATORY PROTECTION:** Not normally needed. Use NIOSH approved respirator for particulates if exposure is unknown or exceeds any permissible limits.

**PROTECTIVE GLOVES:** Wear impervious gloves.

**VENTILATION:** General or Local exhaust.

**LOCAL EXHAUST:** Recommended in closed places.

Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded (see below). Consult the respirator manufacturer to determine appropriate type of equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 CFR 1910.134.

**VENTILATION NOTES:** Provide general or local ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.



**ACGIH THRESHOLD LIMIT VALUE:** 2.0 mg/m<sup>3</sup> TWA (respirable) for Synthetic Graphite

**PROTECTIVE EQUIPMENT:** HMIS PERSONAL PROTECTION: B: Safety Glasses, Gloves

The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Physical State	Solid
Form	Fine Powder
Color	Gray
Odor	No Appreciable Odor
Odor Threshold	ND
pH	NA
Melting Point/ Freezing Point	Melting Point 2011°C; Sublimation Temperature: 3650 °C (6602°F)
Initial Boiling Point And Boiling Range	2315 °C
Flash Point	>200 °F
Evaporation Rate	NA
Upper/Lower Flammability Or Explosive Limits	ND
Explosive Limit – Lower (%)	ND
Explosive Limit – Upper (%)	ND
Volatiles (By Weight):	NA
Vapor Pressure:	NA
Vapor Density:	NA
Relative Density:	NA
Solubility (Water):	Insoluble
Partition Coefficient (N-Octanol/Water):	Not available
Auto-Ignition Temperature:	NA
Decomposition Temperature	NA
Viscosity	NA
Other Information Density	ND
Specific Gravity	1.4-2



## SECTION 10 – STABILITY AND REACTIVITY

<b>STABILITY:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>HAZARDOUS POLYMERIZATION:</b>	Will Not Occur.
<b>CONDITIONS TO AVOID:</b>	Minimize dust generation and accumulation.
<b>INCOMPATIBILITY:</b>	May react dangerously with fluorine and chlorine trifluoride. Avoid strong oxidizing agents.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### INFORMATION ON LIKELY ROUTES OF EXPOSURE

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

Dust may irritate the respiratory tract, skin and eyes.

#### Information on toxicological effects

<b>Acute oral toxicity</b>	ND
<b>Irritant effect on skin</b>	ND
<b>Irritant effect on eyes</b>	ND
<b>Respiratory or Skin Sensitization</b>	Not expected to be a respiratory sensitizer or to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

#### Carcinogenicity

**IARC Monographs. Overall Evaluation of Carcinogenicity** Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)** Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens** Not listed.

<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 overexposure to nuisance dust through inhalation may be harmful, and may result in coughing, dyspnea, black sputum, pneumoconiosis, and impaired pulmonary function.



**SECTION 12 – ECOLOGICAL INFORMATION**

Data from laboratory studies and from scientific literature is noted below if available.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** Follow applicable governing regulations for disposal. Product as sold is nonhazardous per RCRA.

**SECTION 14 – TRANSPORTATION INFORMATION**

The data provided in this section is for information only. The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate regulations to properly classify your shipment for transportation.

<b>UN/NA NUMBER:</b>	NOT REGULATED
<b>PROPER SHIPPING NAME:</b>	N/A
<b>HAZARD CLASS AND LABEL:</b>	N/A
<b>REPORTABLE QUANTITY:</b>	None
<b>HARMONIZED CODE/TARIFF CODE</b>	2504.90.0000
<b>PACKAGING SIZE:</b>	50# Bags

**SECTION 15 – REGULATORY INFORMATION**

**SARA 311 CATEGORIES:**

<b>EPA ACUTE:</b>	No
<b>EPA CHRONIC:</b>	No
<b>EPA IGNITABILITY:</b>	No
<b>EPA REACTIVITY:</b>	No
<b>EPA SUDDEN RELEASE OF PRESSURE:</b>	No
<b>CERCLA RQ VALUE:</b>	None
<b>SARA TPQ:</b>	None
<b>SARA RQ:</b>	None
<b>EPA HAZARD WASTE#:</b>	None
<b>CLEAN AIR:</b>	N/A
<b>CLEAN WATER:</b>	N/A
<b>SARA SECTION 313:</b>	No
<b>NFPA HEALTH:</b>	1
<b>NFPA FLAMMABILITY:</b>	0
<b>NFPA REACTIVITY:</b>	0
<b>DEA Chemical Trafficking Act:</b>	N/A
<b>TSCA STATUS:</b>	All ingredients in this product are on the TSCA Inventory List.



**SECTION 16 – OTHER INFORMATION**

**SDS Revision Date: April 26, 2018**

**FOOT NOTES: N/A NOT APPLICABLE**  
**> = GREATER THAN**

**ND – NO DATA AVAILABLE**  
**< = LESS THAN**

**REVISION STATEMENT:** Changes have been made throughout this Safety Data Sheet. Please read the entire document.

**DISCLAIMER:**

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