



Material Safety Data Sheet

DESCO® DEFLOCCULANT

DRILLING SPECIALTIES COMPANY
Bartlesville, Oklahoma 74004

PHONE NUMBERS

Emergency: (918) 661-8118
Technical Services: (800) 221-1956
For Additional MSDSs: (918) 661-7354

A. Product Identification

Synonyms: Drilling Mud Deflocculant
Chemical Name: Mixture
Chemical Family: Mixture
Chemical Formula: Mixture
CAS Reg. No.: Mixture
Product No.: Not Established

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Chromium compound	Various	5	0.5 mg/m3*	0.5 mg/m3*
Proprietary Ingredients may include:	Various	88-90	NE	NE
Crystalline silica	Various	< 1	0.1 mg/m3	0.1 mg/m3

* (As Chromium, Cr III)

The specific chemical identity of this material is being withheld as a trade secret. In accordance with the provisions of 29 CFR Part 1910.1200 (i), it will be provided to a health professional when requested, and/or to a physician or nurse in a medical emergency through utilization of the above Emergency Telephone Number.

NA - Not Applicable NE - Not Established

C. Personal Protection Information

Ventilation: Local exhaust and mechanical ventilation system is recommended if handled in a confined area. Use adequate ventilation to control below recommended exposure levels.

Respiratory Protection: Use NIOSH/MSHA approved air purifying respirator for protection against dusts having an exposure limit measured as a time weighted average not less than 0.05 milligrams per cubic meter.

Eye Protection: Use safety glasses with side shields.

Skin Protection: Use long-sleeved garment with PVC apron and gloves to prevent skin contact.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Do not breathe vapors, mist, fume or dust. Do not swallow, may be harmful. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Wash thoroughly after handling. Immediately remove and launder contaminated clothing before reuse. Use only with adequate ventilation.

Store in a closed container. Store in a well-ventilated area.

E. Reactivity Data

Stability: Stable

Conditions to Avoid: Not Established

Incompatibility (Materials to Avoid): Not Established

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Not Established

Hazardous Decomposition Products: Sulfur, chromium and carbon oxides formed when burned.

F. Health Hazard Data

Recommended Exposure Limits:

See Section B.

Acute Effects of Overexposure:

Eye: Particulate may be mildly irritating.

Skin: May be mildly irritating to skin. May cause allergic sensitization.

Inhalation: Dust may be mildly irritating to the mucous membranes of the nose, throat and upper respiratory tract with repeated exposure.

Ingestion: Toxic, if swallowed.

Subchronic and Chronic Effects of Overexposure:

Crystalline silica, a common component of sand, has been reported to cause delayed respiratory disease if inhaled over a prolonged period of time. Crystalline silica has been classified as a probable human carcinogen (2A) by IARC, the International Agency for Research on Cancer.

Chromium III compounds may cause kidney damage.

Other Health Effects:

Chromium acetate has produced positive results in mutation assays. No comparable human changes have been identified.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	<u>X</u>	<u>—</u>	Toxic	<u>—</u>	<u>X</u>
Suspect Carcinogen	<u>—</u>	<u>X</u> *	Corrosive	<u>—</u>	<u>—</u>
Mutagen	<u>—</u>	<u>—</u>	Irritant	<u>X</u>	<u>X</u>
Teratogen	<u>—</u>	<u>—</u>	Target Organ Toxin	<u>X</u>	<u>X</u>
Allergic Sensitizer	<u>X</u>	<u>—</u>	Specify - Lung Toxin; Kidney Toxin.		
Highly Toxic	<u>—</u>	<u>—</u>			

* See Subchronic and Chronic Effects of Overexposure immediately above.

First Aid and Emergency Procedures:

Eye: Immediately flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Immediately wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Immediately remove from exposure. If breathing is difficult, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.

Ingestion: Immediately induce vomiting only if subject is conscious. Seek immediate medical attention.

G. Physical Data

Appearance: Fine Reddish-Brown Powder
Odor: Slight
Boiling Point: Not Applicable
Vapor Pressure: Not Applicable
Vapor Density (Air = 1): Not Applicable
Solubility in Water: Complete
Specific Gravity (H₂O = 1): 1.5-1.7
Percent Volatile by Volume: Not Applicable
Evaporation Rate (= 1): Not Applicable
Viscosity: Not Applicable

H. Fire and Explosion Data

Flash Point (Method Used): Not Applicable
Flammable Limits (% by Volume in Air): LEL - Not Applicable
UEL - Not Applicable

Fire Extinguishing Media: Water, foam, dry chemical or carbon dioxide (CO₂)

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Wear appropriate safety equipment for fire conditions including NIOSH/MSHA self-contained breathing apparatus (SCBA) and other protective equipment described in Section C if conditions warrant.

Fire and Explosion Hazards: If in a finely divided and suspended state in air, treat as a flammable dust. Sulfur, chromium and carbon oxides may be released when burned.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in a dry, inert material (sand, clay, etc). Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or manage in permitted waste management facility.

J. DOT Transportation

Shipping Name: Not Applicable
Hazard Class: Not Applicable
ID Number: Not Applicable
Packing Group: Not Applicable
Marking: Not Applicable
Label: Not Applicable
Placard: Not Applicable
Hazardous Substance/RQ: Not Applicable
Shipping Description: Not Applicable
Packaging References: Not Applicable

K. RCRA Classification - Unadulterated Product as a Waste

EP Toxic - (D007)

Prior to disposal, consult your Environmental contact to determine if the TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

☒ This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

<input type="checkbox"/> Combustible Liquid	<input type="checkbox"/> Flammable Aerosol	<input type="checkbox"/> Oxidizer
<input type="checkbox"/> Compressed Gas	<input type="checkbox"/> Explosive	<input type="checkbox"/> Pyrophoric
<input type="checkbox"/> Flammable Gas	<input checked="" type="checkbox"/> Health Hazard (Section F)	<input type="checkbox"/> Unstable
<input type="checkbox"/> Flammable Liquid	<input type="checkbox"/> Organic Peroxide	<input type="checkbox"/> Water Reactive
<input type="checkbox"/> Flammable Solid		

☐ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

N. Additional Comments

Environmental Toxicity: Environmental effects testing has been conducted using Desco® Deflocculant in a generic mud. The tests were conducted according to the 1985 U. S. EPA draft methodology - Drilling Fluid Toxicity Tests. In the test program, mysid shrimp "Mysidopsis Bahia" were exposed to the suspended particulate phase. The 96-hour LC50 for the mysid shrimp was > 1,000,000 ppm.

The results of the test program classify Desco® Deflocculant as a non-toxic drilling mud additive.

SARA 313

This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. (See Section B).

Chromium compounds

NFPA 704 Hazard Codes - - - - - Signals

Health : 1
Flammability: 0
Reactivity : 0
Special Haz.: -

Least - 0
Slight - 1
Moderate - 2
High - 3
Extreme - 4

Phillips Petroleum Company (references to Phillips Petroleum Company or Phillips include its divisions, affiliates and subsidiaries) believes that the information contained herein (including data and statements) is accurate as of the date hereof. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE AS CONCERNS THE INFORMATION HEREIN PROVIDED. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and information referred to herein are beyond the control of Phillips, Phillips expressly disclaims any and all liability as to any results obtained or arising from any use of the product or such information. No statement made herein shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents.