

MATERIAL SAFETY DATA SHEET



Chrome Free Desco® Deflocculant

Version 1.1

Revision Date 2011-02-22

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : Chrome Free Desco® Deflocculant
Material : 1016808, 1017884

Use : Drilling Mud Additive

Company : Chevron Phillips Chemical Company LP
Drilling Specialties Company
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:

Health:

866.442.9628 (North America)
1.832.813.4984 (International)

Transport:

North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China: 0532.8388.9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Chemcare Asia: Tel: +65 6848 9048 - Mob: +65 8382 9188 - Fax: +65 6848
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group
E-mail address : MSDS@CPChem.com
Website : www.CPChem.com

2. HAZARDS IDENTIFICATION

Emergency Overview

Form: Powder **Physical state:** Solid **Color:** Fine reddish-brown with small white specks
Odor: Odorless

OSHA Hazards : Moderate eye irritant, Carcinogen

GHS Classification


: Acute toxicity, Category 5, Oral
Skin irritation, Category 3
Carcinogenicity, Category 1A
Acute aquatic toxicity, Category 3
Chronic aquatic toxicity, Category 3
Eye irritation, Category 2B

GHS-Labeling

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Symbol(s) : 

Signal Word : Danger

Hazard Statements : H303: May be harmful if swallowed.
H316: Causes mild skin irritation.
H320: Causes eye irritation.
H350: May cause cancer.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:**IARC**

Group 1: Carcinogenic to humans

Crystalline Silica 14808-60-7

NTP

Known to be human carcinogen

ACGIH

Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.

Crystalline Silica 14808-60-7

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Drilling Mud Deflocculant

Molecular formula : Mixture

Component	CAS-No.	Weight %
Methyl ester of sulfonated tannin	Proprietary	60.00 - 80.00
Ferrous Sulfate	17375-41-6	7.00 - 15.00
Crystalline Silica	14808-60-7	0.10 - 1.00

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4. FIRST AID MEASURES

- General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
- If inhaled : Move to fresh air. If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

- Flash point : Not applicable
- Autoignition temperature : No data available
- Unsuitable extinguishing media : High volume water jet.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Fire and explosion protection : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
- Hazardous decomposition products : Iron Oxides. Sulfur oxides.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

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Methods for cleaning up : Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Handling**

Advice on safe handling : Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters****US**

Ingredients	Basis	Value	Control parameters	Note
Crystalline Silica	ACGIH	TWA	0.025 mg/m3	A2, Respirable fraction
	OSHA Z1A	TWA	0.1 mg/m3	Respirable fraction
	NIOSH REL	TWA	0.05 mg/m3	Ca, (respirable dust)

A2 Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.

Ca Potential Occupational Carcinogen

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter. Dust safety masks are recommended when the dust concentration is more than 10 mg/m3.

Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection : Dust impervious protective suit. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties****Appearance**

Form	: Powder
Physical state	: Solid
Color	: Fine reddish-brown with small white specks
Odor	: Odorless

Safety data

Flash point	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Oxidizing properties	: No
Autoignition temperature	: No data available
Molecular formula	: Mixture
Molecular Weight	: No data available
pH	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: Not applicable
Vapor pressure	: Not applicable
Water solubility	: Partly soluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: Not applicable
Relative vapor density	: Not applicable
Evaporation rate	: Not applicable

10. STABILITY AND REACTIVITY**Possibility of hazardous reactions**

Conditions to avoid	: No data available.
Materials to avoid	: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Other data	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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Keep in a dry place. No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION**Chrome Free Desco® Deflocculant**

Acute oral toxicity : Acute toxicity estimate: 3,500 mg/kg
Method: Calculation method

Chrome Free Desco® Deflocculant

Acute inhalation toxicity : LC50: not known

Chrome Free Desco® Deflocculant

Acute dermal toxicity : LD50: unknown

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Skin irritation : May cause skin irritation.

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Eye irritation : May cause eye irritation.

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Aspiration toxicity : No aspiration toxicity classification.

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Further information : No data available.

12. ECOLOGICAL INFORMATION**Toxicity to fish**

Methyl ester of sulfonated tannin : LC50: > 1,800 mg/l
Exposure time: 96 HR
Species: *Scophthalmus maximus* (Flatfish, Flounder)

Ferrous Sulfate : LL50: > 6.25 mg/l
Exposure time: 96 HR
Species: *Cyprinodon variegatus* (sheepshead minnow)
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates.

Methyl ester of sulfonated tannin : EC50: 73.2 mg/l
Exposure time: 48 HR
Species: *Acartia tonsa* (Marine Copepod)

Ferrous Sulfate : LC50: 190 mg/l
Exposure time: 48 HR
Species: *Acartia tonsa* (Marine Copepod)

Toxicity to algae

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Methyl ester of sulfonated tannin : EL50: 79 mg/l
Exposure time: 72 HR
Species: Desmodesmus subspicatus (green algae)

Ferrous Sulfate EL50: 45 mg/l
Exposure time: 72 HR
Species: Skeletonema costatum (Marine Algae)

Elimination information (persistence and degradability)

Biodegradability : Not applicable

Further information on ecology

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

The information in this MSDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

14. TRANSPORT INFORMATION

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the MSDS and the bill of lading.

USDOT

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR

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TRANSPORTATION BY THIS AGENCY.

IATA

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

15. REGULATORY INFORMATION**National legislation**

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 302 Reportable Quantity : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Ingredients : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

US State Regulations**Pennsylvania Right To Know**

Ingredients : Ferrous Sulfate 17375-41-6

New Jersey Right To Know

Ingredients : Ferrous Sulfate 17375-41-6
Crystalline Silica 14808-60-7

California Prop. 65 Ingredients

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

Notification status

Europe REACH : On the inventory, or in compliance with the inventory

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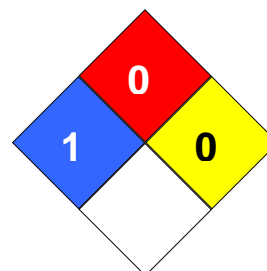
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United States of America US.TSCA	: On the inventory, or in compliance with the inventory
Canada DSL	: On the inventory, or in compliance with the inventory
Australia AICS	: On the inventory, or in compliance with the inventory
New Zealand NZIoC	: Not in compliance with the inventory
Japan ENCS	: Not in compliance with the inventory
Korea KECI	: On the inventory, or in compliance with the inventory
Philippines PICCS	: Not in compliance with the inventory
China IECSC	: On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

NFPA Classification : Health Hazard: 1
Fire Hazard: 0
Reactivity Hazard: 0

**Further information**

Legacy MSDS Number : 59420

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this MSDS pertains only to the product as shipped.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Government Industrial Hygienists	LOAEL	Lowest Observed Adverse Effect Level
AICS	Australia, Inventory of Chemical Substances	NFPA	National Fire Protection Agency
DSL	Canada, Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
NDSL	Canada, Non-Domestic Substances List	NTP	National Toxicology Program
CNS	Central Nervous System	NZIoC	New Zealand Inventory of Chemicals
CAS	Chemical Abstract Service	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration	NOEC	No Observed Effect Concentration
EC50	Effective Concentration 50%	OSHA	Occupational Safety & Health Administration
EINECS	European Inventory of Existing Chemical Substances	PEL	Permissible Exposure Limit
MAK	Germany Maximum Concentration Values	PICCS	Philippines Inventory of Commercial Chemical Substances
GHS	Globally Harmonized System	PRNT	Presumed Not Toxic
>=	Greater Than or Equal To	RCRA	Resource Conservation Recovery Act
IC50	Inhibition Concentration 50%	STEL	Short-term Exposure Limit
IARC	International Agency for Research on	SARA	Superfund Amendments and

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	Cancer		Reauthorization Act.
IECSC	Inventory of Existing Chemical Substances in China	TLV	Threshold Limit Value
ENCS	Japan, Inventory of Existing and New Chemical Substances	TWA	Time Weighted Average
KECI	Korea, Existing Chemical Inventory	TSCA	Toxic Substance Control Act
<=	Less Than or Equal To	UVCB	Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials
LC50	Lethal Concentration 50%	WHMIS	Workplace Hazardous Materials Information System
LD50	Lethal Dose 50%		