HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: OCCIDENTAL FERCHEK BLEND

Revision Date: 04-Jan-2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: OCCIDENTAL FERCHEK BLEND

Synonyms: None Chemical Family: Blend

Application: Iron Reducing Agent

Manufacturer/Supplier Halliburton Energy Services

P.O. Box 1431

Duncan, Oklahoma 73536-0431

Emergency Telephone: (281) 575-5000

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Thioglycolic acid	68-11-1	10 - 30%	1 ppm	Not applicable
Ethylene glycol	107-21-1	1 - 5%	100 mg/m ³	50 ppm
Methanol	67-56-1	1 - 5%	200 ppm (S)	200 ppm

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory burns. May cause headache, dizziness, and

other central nervous system effects. May be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation 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.

Skin In case of contact, immediately flush skin with plenty of soap and water for at least 15

minutes. Get medical attention. Remove contaminated clothing and launder before

reuse.

Eyes In case of contact, or suspected contact, immediately flush eyes with plenty of water

for at least 15 minutes and get medical attention immediately after flushing.

Ingestion Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek

medical attention. Never give anything by mouth to an unconscious person.

Notes to Physician Not Applicable

FIRE FIGHTING MEASURES

Flash Point/Range (F): Not Determined Flash Point/Range (C): Not Determined **Flash Point Method:** Not Determined **Autoignition Temperature (F):** Not Determined **Autoignition Temperature (C):** Not Determined Flammability Limits in Air - Lower (%): Not Determined Flammability Limits in Air - Upper (%): Not Determined

Fire Extinguishing Media Water fog, carbon dioxide, foam, dry chemical. **Special Exposure Hazards** Decomposition in fire may produce toxic gases.

Fire-Fighters

Special Protective Equipment for Full protective clothing and approved self-contained breathing apparatus required for

fire fighting personnel.

Health 3, Flammability 0, Reactivity 0 **NFPA Ratings: HMIS Ratings:** Health 3, Flammability 0, Reactivity 0

ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment.

Environmental Precautionary

Measures

Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning /

Absorption

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials.

Neutralize to pH of 6-8. Scoop up and remove.

HANDLING AND STORAGE

Avoid breathing vapors. Avoid contact with eyes, skin, or clothing. Wash hands after **Handling Precautions**

use. Launder contaminated clothing before reuse.

Storage Information Store away from oxidizers. Store away from alkalis. Keep container closed when not

in use.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use in a well ventilated area.

Respiratory Protection Not normally needed. But if significant exposures are possible then the following

respirator is recommended:

Organic vapor/acid gas respirator.

Hand Protection Impervious rubber gloves.

Rubber apron. Rubber boots. **Skin Protection**

Chemical goggles; also wear a face shield if splashing hazard exists. **Eye Protection**

Other Precautions Eyewash fountains and safety showers must be easily accessible.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid Color: Clear Odor: Irritating

9. PHYSICAL AND CHEMICAL PROPERTIES

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): Soluble

Solubility in Solvents (g/100ml):

VOCs (lbs./gallon):

Viscosity, Dynamic @ 20 C (centipoise):

Viscosity, Kinematic @ 20 C (centistrokes):

Partition Coefficient/n-Octanol/Water:

Molecular Weight (g/mole):

Not Determined

Not Determined

10. STABILITY AND REACTIVITY

Stability Data: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid None anticipated

Incompatibility (Materials to

Avoid)

Strong oxidizers. Strong alkalis.

Hazardous Decomposition

Products

Oxides of sulfur. Carbon monoxide and carbon dioxide.

Additional Guidelines Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Inhalation Causes severe respiratory irritation. Excessive inhalation causes headache,

dizziness, nausea and incoordination.

Skin Contact May cause skin burns.

Eye Contact May cause eye burns.

Ingestion May be fatal or cause blindness if swallowed. Causes burns of the mouth, throat and

stomach. May produce nervous system effects such as feeling of weakness.

unsteady walk, and dilation of blood vessels.

Aggravated Medical Conditions Skin disorders.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause eye, blood, lung, liver, kidney, heart,

central nervous system and spleen damage.

Other Information None known.

Toxicity Tests

Oral Toxicity: Not determined

OCCIDENTAL FERCHEK BLEND Page 3 of 6 **Dermal Toxicity:** Not determined

Inhalation Toxicity: Not determined

Primary Irritation Effect: Not determined

Carcinogenicity Not determined

Genotoxicity: Not determined

Reproductive /

Not determined

Developmental Toxicity:

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air) Not determined

Persistence/Degradability Not determined

Bio-accumulation Not determined

Ecotoxicological Information

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

Chemical Fate Information Not determined

Other Information Not applicable

13. DISPOSAL CONSIDERATIONS

Disposal MethodDisposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION

Land Transportation

DOT

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Thioglycolic Acid), 8, III NAERG 153

Canadian TDG

Corrosive Liquid, Acidic, Organic, N.O.S.(Contains Thioglycolic Acid), 8, UN3265, III

ADR

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Thioglycolic Acid), 8, III

Air Transportation

ICAO/IATA

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S., 8, III (Contains Thioglycolic Acid Solution)

Sea Transportation

IMDG

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Thioglycolic Acid), 8, III EmS F-A, S-B

Other Shipping Information

Labels: Corrosive

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory All components listed on inventory or are exempt.

EPA SARA Title III Extremely Hazardous Substances

Not applicable

EPA SARA (311,312) Hazard

Class

Acute Health Hazard Chronic Health Hazard

EPA SARA (313) Chemicals This product contains toxic chemical(s) listed below which is(are) subject to the

reporting requirements of Section 313 of Title III of SARA and 40 CFR Part 372:

Methanol//67-56-1

Ethylene Glycol//107-21-1

EPA CERCLA/Superfund Reportable Spill Quantity

Not applicable.

EPA RCRA Hazardous Waste

Classification

If product becomes a waste, it does meet the criteria of a hazardous waste as

defined by the US EPA, because of:

Corrosivity D002

California Proposition 65 All components listed do not apply to the California Proposition 65 Regulation.

MA Right-to-Know Law

One or more components listed.

NJ Right-to-Know Law

One or more components listed.

PA Right-to-Know Law One or more components listed.

Canadian Regulations

Canadian DSL Inventory Product contains one or more components not listed on inventory.

WHMIS Hazard Class D2B Toxic Materials

E Corrosive Material

16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS

Not applicable

Additional Information For additional information on the use of this product, contact your local Halliburton

representative.

For questions about the Material Safety Data Sheet for this or other Halliburton

products, contact Chemical Compliance at 1-580-251-4335.

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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