

I. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: StAR FLH™

Product Use: Drilling Fluid Additive

CAS No. Blend

Supplier

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II. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW May cause irritation to skin, eyes and respiratory system. High concentrations of dust, may constitute an explosion hazard.

POTENTIAL HEALTH EFFECTS

Eye Contact May cause eye irritation.

Skin Contact May cause irritation.

Ingestion Oral exposure is not expected to occur.

Inhalation Avoid inhalation of dusts. May cause irritation to the respiratory system.

Long Term Exposure No known long term hazards are associated with the use of this material.

III. COMPOSITION/INFORMATION ON INGREDIENTS

A proprietary blend of polymers, organic natural products and metal oxides.

CHEMICALS	CAS No.	%W/W
Iron Oxides	1371-61-9	2-12

Occupational Exposure Limits - See Section: VIII (8)

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IV. FIRST AID MEASURES

Inhalation Move person to fresh air. If symptoms develop, obtain medical attention.

Skin Contact Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water. If symptoms persist, obtain medical attention.

Eye Contact If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.

Ingestion Rinse mouth. If symptoms develop, obtain medical attention.

V. FIRE-FIGHTING MEASURES

Flammable./Explosive Properties High concentrations of dust, may constitute an explosion hazard. Dust clouds are sensitive to ignition by electrostatic discharge. Dampening with water can reduce dust.

Extinguishing media Water spray, foam, dry powder or CO2.

Unsuitable Extinguishing Media None known.

Fire Fighting Protective Equipment Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions Wear suitable protective clothing. See Section:VIII

Environmental Precautions Avoid run off to waterways and sewers.

Methods for Cleaning up Sweep up spilled substance but avoid breathing dust. Transfer to a container for disposal or recovery.

Other Ensure adequate ventilation. Caution - spillages may be slippery. Disposal should be in accordance with local, state or national legislation.

VII. HANDLING AND STORAGE

Handling Avoid generation of dust. Use only with adequate ventilation to keep exposures (airborne levels of dust, fume, vapour etc) below recommended exposure limits.

Storage Avoid build up of dust. Keep containers in a clean, cool and dry area away from heat sources.

Storage Temperature: Ambient temperatures.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

HAZARDOUS INGREDIENT(S)	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	OSHA PEL 10 mg/m3
Iron Oxides	1371-61-9	-	5 mg/m³	-	5 mg/m³

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PRODUCT INFORMATION

Engineering Controls	Provide adequate ventilation.
Eye Protection	Wear protective eyewear (goggles, face shield, or safety glasses).
Gloves	Protective gloves.
Respirators	An approved dust mask should be worn if dust is generated during handling.
Other	Wear protective equipment to comply with good occupational hygiene practice.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form	Powder.
Color	Light Brown.
Odor	Slight.
pH (Value)	Not determined
Flash Point (°C) [Open cup]/ [Closed cup]	Not applicable.
Specific Gravity	<1
Solubility (Water)	Partially soluble.

X. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Hazardous Reactions	None
Incompatible materials:	Keep away from heat and sources of ignition Oxidizing agents.
Hazardous Decomposition Product(s)	Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide

XI. TOXICOLOGICAL INFORMATION

Inhalation	Avoid inhalation of high concentrations of dusts.
Skin Contact	May cause irritation
Eye Contact	Dust may have irritant effect on eyes.
Ingestion	Ingestion may cause irritation of the gastrointestinal tract.
Long Term Exposure	No known long term hazards are associated with the use of this material.

XII. ECOLOGICAL INFORMATION

Environmental Fate and Distribution	No environmental hazards have been reported or known.Avoid release to the environment.
Persistence and Degradation	Not determined
Toxicity	Not harmful to aquatic organisms.

XIII. DISPOSAL CONSIDERATIONS

Regulatory information	The waste is considered to be non hazardous.
Recommended:	Disposal should be in accordance with local, state or national legislation.

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XIV. TRANSPORT INFORMATION

Harmonized Tariff Number 3824.90.92.90

US FEDERAL TRANSPORT REGULATIONS

D.O.T. Classification Not classified as dangerous for transport.

Proper Shipping Name Not classified as dangerous for transport.

TGD - CANADIAN TRANSPORT REGULATIONS

Proper Shipping Name

INTERNATIONAL TRANSPORT REGULATIONS

Proper Shipping Name Not classified as dangerous for transport.

SEA

IMDG Class Not classified as dangerous for transport.

AIR

Not classified as dangerous for transport.

XV. REGULATORY INFORMATION

US Federal Regulations

SARA 302 - Extremely Hazardous Substances None

SARA 311/312 - Hazard Categories Acute – Yes, Chronic – No, Flammability – No, Reactivity - No

SARA 313 - Toxic Chemicals None

US State Regulations

Proposition 65 (California) None

Canada – WHMIS Classification

TSCA (Toxic Substance Control Act) Listed

XVI. OTHER INFORMATION

NFPA	NFPA Rating	HMIS (Hazardous Material Information System)	
Health	1	Health	1
Fire	1	Flammability	1
Instability	0	Reactivity	0
		Personal Protection	E

Packaging. 25 pound (11.34 kg) sacks, 48 sacks per pallet, 1200 lbs (544.32 kg). Pallet and shrink wrap weight approximately 50 lbs (22.7 kg). Full, shrink wrapped pallets are 44 square by 40 high, weighting approximately 1250 lbs (568.2 kg).

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GLOSSARY

CERCLA	Comprehensive Environmental Response Compensation and Liability Act
COD	Chemical Oxygen Demand (COD)
LC50	Lethal Concentration
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
R	Respirable Dust
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value (ACGIH)
TWA	Time Weighted Average

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