

HC-FR 9000
Mid/High Brine Friction Reducer

Rev. Date: 4/11/2014

1. IDENTIFICATION

Product Name *HC-FR 9000*

Product Use Friction Reducer

Supplier Houston Chemical
PO Box 1183 - Cypress, TX 77410

Contact Numbers 281-955-0041

E-mail Contact for SDS info@houstonchem.com (customer service)

Emergency Telephone Number CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION**Hazard Classification**

APPEARANCE AND ODOR:

Color: Opalescent to white liquid

Appearance: Viscous liquid

Odor: Slight hydrocarbon

Precautionary Statements

WARNING: Causes skin irritation, may cause eye irritation.

POTENTIAL HEALTH EFFECTS:

EFFECTS OF EXPOSURE:

Direct contact with this material can cause moderate skin and mild eye irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Description	Friction Reducer
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Component	CAS No.	Conc. (%)
ND		

(*) Our company is withholding the specific chemical composition under provision of the OSHA Hazard Communication Rule Trade Secrets. The specific composition will be made available to health professionals in accordance with 29 CFR 1910.1200(i)(1-4).

4. FIRST AID MEASURES

Inhalation	Remove to fresh air. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing that may restrict breathing. Obtain medical attention if discomfort persists.
Skin	Do not reuse contaminated clothing without laundering. Wash immediately with plenty of water. Remove contaminated clothing and shoes without delay. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.
Eye	Rinse thoroughly with plenty of water, also under the eyelids for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If swallowed, call a physician immediately.

5. FIRE FIGHTING MEASURES

Extinguishing media	Water Spray, Carbon Dioxide (CO ₂). Dry Chemical.
Unsuitable extinguishing media	None.
Fire fighting procedures	Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/ Personal Protection). Firefighters, and others exposed, wear self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire.
Combustion products	ND

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.
Personal Protection	Wear adequate personal protective equipment (see Section 8 Exposure Controls/ Personal Protection). Keep people away from spill/leak.
Environmental Protection	As with all chemical products, do not flush into surface water.
Clean up methods - small spillage	Absorb or contain liquid with absorbent material and placed into labelled containers for appropriate disposal. Do not flush area with water. Product may cause a slip hazard if mixed with water. If slipperiness remains apply more dry-sweeping compound.
Clean up methods - large spillage	Stop leak if without risk. Move containers from spill area. Absorb or contain liquid with absorbent material and placed into labelled containers for appropriate disposal. Product may cause a slip hazard if mixed with water. If slipperiness remains apply more dry-sweeping compound. Dispose of via a licensed waste disposal contractor.

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7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Use only in well ventilated areas. No smoking. Wash thoroughly after handling.
Storage	To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Flashpoint determinations on materials of this type are required by certain regulations and scientific standards to be performed using a Pensky-Martens type closed cup test method. This method indicates a flash point greater than 93.3 C (200 F). Although there was no flashpoint detected below 93.3 C (200 F) by the Pensky-Martens Closed Tester method, some flammable vapors were evolved during the test as evidenced by the enlargement of the test flame; therefore, caution should be exercised during storage and handling. Storage Temperature: Store at < 32 °C 90 °F Reason: Integrity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits		TWA (8 hours)			STEL (15 min)			Ceiling			
Components:	List name	ppm	mg/m3	Other	ppm	mg/m3	Other	ppm	mg/m3	Other	Notes
ND	US ACGIH	-	-	-	-	-	-	-	-	-	-
	OSHA PEL	-	-	-	-	-	-	-	-	-	-

Engineering Control Measures	Where the material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.
Respiratory Protection	Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.
Hand Protection	Chemical resistant gloves.
Eye Protection	Chemical splash goggles (chemical monogoggles). Wear face-shield in addition when transferring material.
Body Protection	Use protective clothing, which is chemical resistant to this material. Safety shoes or boots should be chemical resistant.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Physical state	White liquid
Odor	Oily
Odor Threshold	Not available
pH-value	6-9 upon dilution in water

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Melting/Freezing Point	N/A
Initial Boiling Point Range	Similar to Water
Flash Point	>102C-215F Closed Cup
Flammability	Not applicable
Upper/Lower Explosion Limits	Not available
Vapor Pressure	Not determined
Vapor Density	Similar to Water
Relative density	1.05-1.10
Density	Not Available
Solubility	Limited to viscosity
Partial coefficient (n-octanol/water)	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use.
Conditions To Avoid	None Known
Incompatible Materials	No specific incompatibility
Thermal Decomposition Products	Ammonia(NH ₃), Carbon Dioxide, Carbon Minoxide (CO), Oxides of nitrogen, Oxides of Sulfur(Includes sulfur di and tri oxides

11. TOXICOLOGICAL INFORMATION

Basis for assessment	Information given is based on the toxicology of the product. This product contains no OSHA regulated (hazardous) components.
Skin irritation	
Eye irritation	Overexposure to vapor may cause respiratory tract irritation and central nervous system depression. The estimated acute oral (rat) LD50, acute dermal (rabbit) LD50, and 4-hour inhalation (rat) LC50 values for this material are >5,000 mg/kg, >2,000 mg/kg and >20 mg/l, respectively.
Acute toxicity - Dermal	
Acute toxicity - Inhalation	
Acute toxicity - Oral	
Repeated dose toxicity	ND.
Mutagenicity	ND.
Developmental toxicity	ND
Carcinogenicity	ND

12. ECOLOGICAL INFORMATION

Basis for Assessment	No adverse environmental effects are expected with proper use and disposal of this product. Acute toxicity tests conducted using environmentally representative water gave the following results:.
Mobility	ND
Persistence/degradability	ND
Bioaccumulation	ND
Freshwater Fish Toxicity	Test: acute toxicity, fresh water (OECD 203) Duration: 96 hr; Species: zebra fish (brachydanio rerio) > 100 mg/l information based on a structurally similar material. Test: acute immobilization (OECD 202) Duration: 48 hr. Species: water flea (daphnia magna) > 100 mg/l - Information based on a structurally similar material.
Freshwater Invertebrates	
Toxicity	Test: Growth inhibition (OECD 201) Duration: 72 hr - Species: Green Algae (Selenastrum capricornutum) > 100 mg/l.
Acute toxicity - algae	Information based on a structurally similar material.
Acute toxicity - bacteria	ND

13. DISPOSAL CONSIDERATIONS

Waste disposal	Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
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Container disposal	Rinse empty containers with water and use the rinse water to prepare the working solution. Can be landfilled or incinerated, when in compliance with local, state and federal regulations.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. TRANSPORT INFORMATION

DOT Classification	Transportation Modes: D.O.T. Proper Shipping Name: D.O.T Technical Name: N/A D.O.T. Hazard Class: N/A D.O.T UN Number: N/A
	Transportation Modes: D.O.T. Proper Shipping Name: D.O.T Technical Name: D.O.T. Hazard Class: 9 D.O.T UN Number: UN3082 Reportable Quantity: For Non-Bulk Shipments and Bulk Shipments up to 83,333 lbs Not Regulated
	Hazard Subclass: N/A Resp. guide page: N/A Packing Group: N/A
	For Bulk Shipments of 83,333 lbs or larger Environmentally Hazardous Substance, Liquid, N.O.S. Contains Ammonium Acetate Hazard Subclass: N/A Resp. guide page: N/A Packing Group: III 83,333 lbs (Ammonium Acetate RQ = 5000 lbs)

15. REGULATORY INFORMATION

INTERNATIONAL REGISTRATION:

TSCA (USA)	All components listed or exempted. United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory. Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL. The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc). See section 13 for information on waste classification and waste disposal of this product. This product does not contain any components regulated under these section of the EPA PRODUCT HAZARDCLASSIFICATION UNDER SECTION 311 OF SARA - Acute
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16. OTHER INFORMATION

HEALTH HAZARD: 1

FIRE HAZARD: 1

REACTIVITY: 0

Prepared by: Audris King

Revisions: 3/26/2014: Section 9, density updated.

4/11/2014: Updated to reflect GHS classification and format.

The information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since the information contained herein 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 modification of the information, we do not assume any responsibility for the result 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.
