

# MATERIAL SAFETY DATA SHEET

**Product Trade Name:** ACID BLEND - HCL AND HF WITH METHANOL

**Revision Date:** 02-Jan-2013

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name:** ACID BLEND - HCL AND HF WITH METHANOL  
**Synonyms:** None  
**Chemical Family:** Blend  
**Application:** Acid

**Manufacturer/Supplier** Halliburton Energy Services  
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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Hydrofluoric acid	7664-39-3	1 - 5%	0.5 ppm	3 ppm
Hydrochloric acid	7647-01-0	10 - 30%	2 ppm	5 ppm
Methanol	67-56-1	10 - 30%	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 fatal if swallowed. May cause blindness. May be absorbed through the skin. Repeated overexposure may cause liver and kidney effects. Combustible.

## 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. Wearing protective gloves, apply 2.5% calcium gluconate gel at burn site rubbing continuously.

**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. If available, apply 1 to 2 drops of 0.5% Pontocaine Hydrochloride into open eye. Irrigate with 1.0% calcium gluconate in normal saline for 1 to 2 hours.

**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.

**5. FIRE FIGHTING MEASURES**

Flash Point/Range (F):	Not Determined	Max: < 141
Flash Point/Range (C):	Not Determined	Max: < 60
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. Reaction with steel and certain other metals generates flammable hydrogen gas. Do not allow runoff to enter waterways.

**Special Protective Equipment for Fire-Fighters** Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

**NFPA Ratings:** Health 3, Flammability 2, Reactivity 0  
**HMIS Ratings:** Health 3, Flammability 2, Reactivity 0

**6. 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.

**7. HANDLING AND STORAGE**

**Handling Precautions** Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

**Storage Information** Store away from alkalis. Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls** Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

**Respiratory Protection** Positive pressure self-contained breathing apparatus if methanol is released.

**Hand Protection** Impervious rubber gloves.

**Skin Protection** Full protective chemical resistant clothing. Rubber boots.

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

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Clear colorless
Odor:	Alcohol
pH:	1
Specific Gravity @ 20 C (Water=1):	1.03
Density @ 20 C (lbs./gallon):	8.58
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):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	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	Flammable hydrogen gas. Chlorine. Hydrogen sulfide. 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. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.
Skin Contact	Causes severe burns.
Eye Contact	May cause eye burns.
Ingestion	Causes burns of the mouth, throat and stomach. May be fatal or cause blindness if swallowed. May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.
Aggravated Medical Conditions	Skin disorders. Eye ailments.

**Chronic Effects/Carcinogenicity** Prolonged or repeated exposure may cause eye, blood, lung, liver, kidney, heart, central nervous system and spleen damage. Prolonged or repeated exposure may result in fluorosis. Symptoms include nausea, vomiting, loss of appetite, diarrhea, and/or constipation. Fluorosis also results in bone density increase. Prolonged, excessive exposure may cause erosion of the teeth.

**Other Information** None known.

#### **Toxicity Tests**

**Oral Toxicity:** Not determined

**Dermal Toxicity:** Not determined

**Inhalation Toxicity:** Not determined

**Primary Irritation Effect:** Not determined

**Carcinogenicity** Not determined

**Genotoxicity:** Not determined

**Reproductive /  
Developmental Toxicity:** Not determined

### **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 Method** Disposal 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**

UN2920, Corrosive Liquid, Flammable, N.O.S. (Contains Hydrochloric Acid, Methanol), 8, (3), II, (37 C)  
RQ (Hydrofluoric Acid - 1513 kg.)

**Canadian TDG**

Corrosive Liquid, Flammable, N.O.S.(Contains Hydrochloric Acid, Methanol), 8, (3), UN2920, II, (37 C)

**ADR**

UN2920,Corrosive Liquid, Flammable, N.O.S.(Contains Hydrochloric Acid, Methanol), 8, (3), II

**Air Transportation****ICAO/IATA**

UN2920,Corrosive Liquid, Flammable, N.O.S., 8, (3), II  
(Contains Hydrochloric Acid, Methanol)  
RQ (Hydrofluoric Acid - 1513 kg.)

**Sea Transportation****IMDG**

UN2920,Corrosive Liquid, Flammable, N.O.S.(Contains Hydrochloric Acid, Methanol), 8, (3), II, (37 C)  
RQ (Hydrofluoric Acid - 1513 kg.)  
EmS F-E, S-C

**Other Transportation Information**

**Labels:** Corrosive  
Flammable Liquid

**15. REGULATORY INFORMATION****US Regulations**

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

**EPA SARA Title III Extremely Hazardous Substances** CAS: 7664-39-3//Chemical Name: Hydrogen Fluoride//TPQ: 100

**EPA SARA (311,312) Hazard Class** Acute Health Hazard  
Chronic Health Hazard  
Fire 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  
Hydrogen Fluoride//7664-39-3

**EPA CERCLA/Superfund Reportable Spill Quantity** EPA Reportable Spill Quantity is 388 Gallons based on Hydrofluoric acid (CAS: 7664-39-3).

**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  
Ignitability D001

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

**ACID BLEND - HCL AND HF WITH METHANOL**

<b>MA Right-to-Know Law</b>	One or more components listed.
<b>NJ Right-to-Know Law</b>	One or more components listed.
<b>PA Right-to-Know Law</b>	One or more components listed.
<b>Canadian Regulations</b>	
<b>Canadian DSL Inventory</b>	All components listed on inventory or are exempt.
<b>WHMIS Hazard Class</b>	B3 Combustible Liquids E Corrosive Material D1A Very Toxic Materials D1B Toxic Materials

## 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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**\*\*\*END OF MSDS\*\*\***