

## MATERIAL SAFETY DATA SHEET

Product Trade Name: **CLA-SAFE F WITHOUT METHANOL**

Revision Date: 03-Jan-2012

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: CLA-SAFE F WITHOUT METHANOL

Synonyms: None

Chemical Family: Organic acid

Application: Solvent

Manufacturer/Supplier: Halliburton Energy Services  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Emergency Telephone: (281) 575-5000

Prepared By: Chemical Compliance  
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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Formic acid	64-18-6	5 - 10%	5 ppm	5 ppm
Acetic acid	64-19-7	5 - 10%	10 ppm	10 ppm

### 3. HAZARDS IDENTIFICATION

Hazard Overview: May cause eye and skin burns. May cause respiratory irritation. May be harmful if swallowed. Combustible.

### 4. FIRST AID MEASURES

**Inhalation** If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**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

## 5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	Not Determined
Flash Point/Range (C):	Min: > 190
Flash Point Method:	Not Determined
Autoignition Temperature (F):	Min: > 87
Autoignition Temperature (C):	PMCC
Flammability Limits in Air - Lower (%):	1114
Flammability Limits in Air - Upper (%):	601
	Not Determined
	Not Determined

**Fire Extinguishing Media** Water fog, carbon dioxide, foam, dry chemical.

**Special Exposure Hazards** Decomposition in fire may produce toxic gases.

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

**NFPA Ratings:** Health 2, Flammability 1, Reactivity 1

**HMIS Ratings:** Health 2, Flammability 1, Reactivity 1

## 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. 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** Acid gas respirator.

**Hand Protection** Impervious rubber gloves.

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

**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

<b>Physical State:</b>	Liquid
<b>Color:</b>	Clear colorless
<b>Odor:</b>	Pungent

## 9. PHYSICAL AND CHEMICAL PROPERTIES

pH:	0.3
Specific Gravity @ 20 C (Water=1):	1.11
Density @ 20 C (lbs./gallon):	9.25
Bulk Density @ 20 C (lbs/ft <sup>3</sup> ):	Not Determined
Boiling Point/Range (F):	215
Boiling Point/Range (C):	101
Freezing Point/Range (F):	-4
Freezing Point/Range (C):	-20
Vapor Pressure @ 20 C (mmHg):	23
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	100
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Miscible
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 Keep away from heat, sparks and flame.
Incompatibility (Materials to Avoid)	Strong alkalis. Strong oxidizers.
Hazardous Decomposition Products	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	Causes severe eye burns.
Ingestion	Causes burns of the mouth, throat and stomach.
Aggravated Medical Conditions	Skin disorders.
Chronic Effects/Carcinogenicity	Prolonged, excessive exposure may cause erosion of the teeth.
Other Information	None known.
Toxicity Tests	
Oral Toxicity:	Not determined

<b>Dermal Toxicity:</b>	Not determined
<b>Inhalation Toxicity:</b>	Not determined
<b>Primary Irritation Effect:</b>	Not determined
<b>Carcinogenicity</b>	Not determined
<b>Genotoxicity:</b>	Not determined
<b>Reproductive / Developmental Toxicity:</b>	Not determined

## 12. ECOLOGICAL INFORMATION

<b>Mobility (Water/Soil/Air)</b>	Not determined
<b>Persistence/Degradability</b>	Readily biodegradable
<b>Bio-accumulation</b>	Not determined

### Ecotoxicological Information

<b>Acute Fish Toxicity:</b>	Not determined
<b>Acute Crustaceans Toxicity:</b>	Not determined
<b>Acute Algae Toxicity:</b>	Not determined

<b>Chemical Fate Information</b>	Not determined
<b>Other Information</b>	Not applicable

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal Method</b>	Disposal should be made in accordance with federal, state, and local regulations.
<b>Contaminated Packaging</b>	Follow all applicable national or local regulations.

## 14. TRANSPORT INFORMATION

### Land Transportation

#### DOT

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Formic Acid, Acetic Acid), 8, II  
NAERG 153

#### Canadian TDG

Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Formic Acid, Acetic Acid), 8, UN3265, II

#### ADR

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Formic Acid, Acetic Acid), 8, II

### Air Transportation

#### ICAO/IATA

UN3265, Corrosive Liquid, Acidic, Organic, N.O.S., 8, II  
(Contains Formic Acid, Acetic Acid)

## Sea Transportation

### IMDG

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

## Other Transportation 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** Chronic Health Hazard  
Fire Hazard  
Acute 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: Formic Acid//64-18-6

**EPA CERCLA/Superfund Reportable Spill Quantity** EPA Reportable Spill Quantity is 4700 Gallons based on Acetic acid (CAS: 64-19-7).

**EPA RCRA Hazardous Waste Classification** Corrosivity D002  
If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of:

**California Proposition 65** The California Proposition 65 regulations apply to this product.

**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 the inventory.

**WHMIS Hazard Class** E Corrosive Material  
B3 Combustible Liquids  
D2B 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.

### Disclaimer Statement

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