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
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substances</th>
<th>CAS Number</th>
<th>PERCENT</th>
<th>ACGIH TLV-TWA</th>
<th>OSHA PEL-TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic acid</td>
<td>64-18-6</td>
<td>5 - 10%</td>
<td>5 ppm</td>
<td>5 ppm</td>
</tr>
<tr>
<td>Acetic acid</td>
<td>64-19-7</td>
<td>5 - 10%</td>
<td>10 ppm</td>
<td>10 ppm</td>
</tr>
</tbody>
</table>

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): Not Determined
Flash Point Method: PMCC
Autoignition Temperature (F): 1114
Autoignition Temperature (C): 601
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.

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

Physical State: Liquid
Color: Clear colorless
Odor: 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/ft3): 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.
- 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
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 Readily biodegradable
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
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***