

MATERIAL SAFETY DATA SHEET

Product Trade Name: HAI-60 ACID INHIBITOR

Revision Date: 04-Jan-2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: HAI-60 ACID INHIBITOR
Synonyms: None
Chemical Family: Blend
Application: Corrosion Inhibitor

Manufacturer/Supplier: Halliburton Energy Services
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Emergency Telephone: (281) 575-5000

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Potassium iodide	7681-11-0	1 - 5%	Not applicable	Not applicable
Ethyl octynol	5877-42-9	5 - 10%	Not applicable	Not applicable
Nonylphenol ethoxylate		1 - 5%	Not applicable	Not applicable
Heavy aromatic petroleum naphtha	64742-94-5	5 - 10%	5 mg/m ³	5 mg/m ³
Isopropanol	67-63-0	30 - 60%	200 ppm	400 ppm
Propargyl alcohol	107-19-7	1 - 5%	1 ppm S	Not applicable
A quaternary ammonium salt		5 - 10%	Not applicable	Not applicable

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye and skin burns. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed. May be absorbed through the skin. Flammable.

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.

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.

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	79
Flash Point/Range (C):	26
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 May be ignited by heat, sparks or flames. Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. 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 3, Flammability 3, Reactivity 0

HMIS Ratings: Health 3, Flammability 3, Reactivity 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.

Environmental Precautionary Measures Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. 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. Ground and bond containers when transferring from one container to another.

Storage Information Store away from oxidizers. Keep from heat, sparks, and open flames. 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 Organic vapor/acid gas respirator. In high concentrations, supplied air respirator or a self-contained breathing apparatus.

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:	Orange
Odor:	Aromatic hydrocarbon
pH:	Not Determined
Specific Gravity @ 20 C (Water=1):	1.01
Density @ 20 C (lbs./gallon):	8.41
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	228
Boiling Point/Range (C):	108
Freezing Point/Range (F):	Not Determined
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	222.65
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Insoluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistrokes):	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	Keep away from heat, sparks and flame.
Incompatibility (Materials to Avoid)	Strong oxidizers. Olefins, monomers, alkylene oxides, cyanohydrids. Mineral acids.
Hazardous Decomposition Products	Toxic fumes. Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure	Eye or skin contact, inhalation.
Inhalation	May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.
Skin Contact	May be absorbed through the skin and contribute to the symptoms listed under ingestion. Causes severe burns.
Eye Contact	May cause eye burns.

Ingestion	Causes burns of the mouth, throat and stomach. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression.
Aggravated Medical Conditions	Skin disorders. Eye ailments.
Chronic Effects/Carcinogenicity	Prolonged or repeated exposure may cause liver, kidney and lung effects.
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

UN2924, Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Ethyl Octynol), 3, (8), III, (26 C)
NAERG 132

Canadian TDG

Flammable Liquid, Corrosive, N.O.S.(Contains Isopropanol, Ethyl Octynol), 3, (8), UN2924, III, (26 C)

ADR

UN2924, Flammable Liquid, Corrosive, N.O.S.(Contains Isopropanol, Ethyl Octynol), 3, (8), III

Air Transportation**ICAO/IATA**

UN2924, Flammable Liquid, Corrosive, N.O.S., 3, (8), III
(Contains Isopropanol, Ethyl Octynol Solution)

Sea Transportation**IMDG**

UN2924, Flammable Liquid, Corrosive, N.O.S.(Contains Isopropanol, Ethyl Octynol), 3, (8), III, (26 C)
EmS F-E, S-C

Other Shipping Information

Labels: Flammable Liquid
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 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:
Propargyl Alcohol//107-19-7
Isopropanol//67-63-0

EPA CERCLA/Superfund Reportable Spill Quantity EPA Reportable Spill Quantity is 2972 Gallons based on Propargyl alcohol (CAS: 107-19-7).

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:

Ignitability D001

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

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	All components listed on inventory.
WHMIS Hazard Class	B2 Flammable 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*****