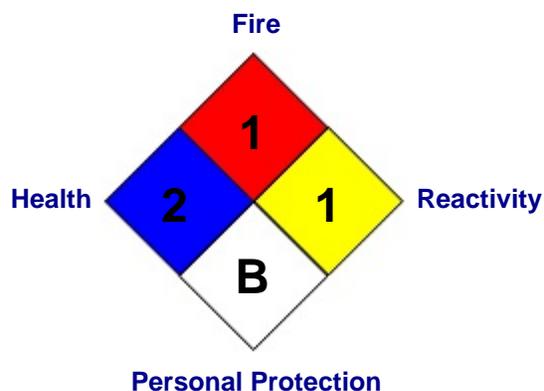




**HMIS Hazard Rating:**

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal



***I. Chemical Product and Company Identification***

Product Name: IC-100L  
Identification #: 35-490-0101  
Product Use/Class: Iron Control Additive  
Supplier: Superior Well Services  
Manufacturer: Benchmark Energy Products, L.P.  
Emergency Contact: CHEMTREC 1 (800) 424-9300  
Prepared By: RAA  
Date Prepared: 03/04/2008

***II. Composition/Information on Ingredients***

Chemical Name: Citric Acid (2-Hydroxy-1,2,3 Propanetricarboxylic Acid)  
CAS Number: 77-92-9  
Percent by Mass Less Than: 50-100

**Exposure Limits**

Threshold Limit Value - Time Weighted Average: ND  
Threshold Limit Value - Short Term Exposure Limit: ND  
Permissible Exposure Limit - Time Weighted Average: ND  
Permissible Exposure Limit - Ceiling: ND  
Company Threshold Limit - Time Weighted Average: NI  
Skin: NO

### III. Hazardous Identification

Emergency Overview:	DO not get in eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas.
Eye Contact:	Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.
Skin Contact:	This product is irritating to the skin resulting in reddening, stinging, and swelling. Allergic reactions are possible.
Inhalation:	Prolonged inhalation may be harmful. May cause severe irritation to mucus membranes and lung tissue.
Ingestion:	May be irritating to mouth, throat, and stomach. May cause abdominal discomfort, nausea and diarrhea.
Chronic Harards:	Loss of tooth enamel may result from long term exposure.

#### Effects of Overexposure

Primary Route(s) of Entry:	<input type="checkbox"/> Skin Contact	<input type="checkbox"/> Eye Contact	<input type="checkbox"/> Ingestion
	<input type="checkbox"/> Skin Absorbtion	<input type="checkbox"/> Inhalation	

### IV. First Aid Measures

Eye Contact:	Immediately flush with water for at least 15 minutes. Remove contact lenses before water flush. Get medical attention.
Skin Contact:	Remove contaminated clothing. Wash skin with soap and water. Get medical attention.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. If victim is fully conscious, drink 1-2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

### V. Fire Fighting Measures

Flash Point:	Non-combustible
Auto Ignition Temperature:	Not Determined
Lower Explosive Temp.:	NI
Upper Explosive Temp.:	NI
Extinguishing Media:	Use suitable media for surrounding materials.
Unusual Fire and Explosive Harards:	None expected.
Special Fire Fighting Procedures:	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

### VI. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:	Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches. (See section VIII.) Spilled material should be contained and disposed of properly.
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## VII. Handling and Storage

Handling:	Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not breathe dust, vapor, mist, or gas.
Storage:	Store in a dry place away from excessive heat, in original or similar waterproof containers. Keep container closed. Keep from freezing.

## VIII. Exposure Controls/Personal Protection

Engineering Controls:	Local exhaust and ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.
Respiratory Protection:	No protection needed under normal use and conditions. Use a NIOSH/MSHA approved dust respirator when airborne concentrations are expected to exceed exposure limits.
Skin Protection:	Wear rubber or vinyl gloves. Wear long sleeved shirts and pants to minimize skin contact.
Eye Protection:	Wear chemical safety goggles plus a full face shield to protect against splashing.
Other Protective Equipment:	Emergency eyewash stations and deluge showers should be available in the work area.
Hygienic Practices:	Employees should wash their hands and face before eating, drinking, or using tobacco products.

## IX. Physical and Chemical Properties

Boiling Point:	216-219 F (104 C)	Vapor Density:	.62
Odor:	Very slight sugary odor	Odor Threshold:	Not Determined
Appearance:	Clear white-colorless to clear pale yellow/brown	Evaporation Rate:	<1
Solubility in H2O:	Complete	Specific Gravity:	1.24-1.54 @ 59F
Freeze Point:	No Information	pH at 50.0%:	As Is 4-8
Vapor Pressure:	16 mmHg @ 68F	Viscosity:	Not Determined
Physical State:	Liquid		
Coefficient of Water Oil Distribution:	No Information		

## X. Stability and Reactivity

Conditions to Avoid:	Avoid temperature extremes and incompatibles.
Incompatibility:	Reaction with caustic can create heat. Avoid strong bases, alkali metals, organic acids, and oxides of sulfur.
Hazardous Decomposition Products:	Oxides of carbon. Liquid citric acid can form hydrogen when in contact with reactive metals.
Hazardous Polymerization:	Will not occur under normal conditions.
Stability:	This product is stable under normal storage conditions.

## XI. Toxicological Properties

Toxicological Properties:	No product information is available.
Oral:	LD50 rat=11.7 g/kgLD50 mouse=5040 mg/kg
Dermal:	No product information is available.
Inhalation:	No product information is available.

## ***XII. Ecological Information***

Ecological Properties: No product information is available.  
Ecotoxicity: No product information is available.  
Chemical Fate Information: No product information is available.

## ***XIII. Disposal Consideration***

Disposal Method: Consult local, state, and federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.  
RCRA Status: Not an RCRA waste.

## ***XIV. Transportation Information***

DOT Proper Shipping Name: Not DOT Regulated  
DOT Technical Name:  
DOT Hazard Class:  
DOT Hazard Subclass:  
DOT UN/NA Number:  
Packing Group:  
Resp. Guide Page:

## ***XV. Regulatory Information***

OSHA:	No OSHA information listed.
TSCA Status:	All components of this product are listed on the Toxic Substance Control Act Inventory or are excluded from the listing requirements.
CERCLA SARA:	This product has been reviewed according to the EPA 'Hazard Categories' promulgated under the sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: Immediate Health Hazard, Chronic Health Hazard
SARA Section 313 Required Reporting:	

## ***XVI. Other Information***

Other Information:            NA = Not applicable    ND = Not Determined    NI = No Information    NE = Not Established

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, or when used in conjunction with other products, exposures must be evaluated by the user so that appropriate handling practices and training programs can be established to ensure safe workplace operations. This information is confidential to Superior Well Services, Ltd. (SWSI) and intended solely for the use of the individual or entity to whom they are directly distributed. Distribution or use beyond the individual or entity is strictly prohibited without the consent of SWSI.