

MATERIAL SAFETY DATA SHEET

Product Trade Name: **BASO 4 LVENT**

Revision Date: 20-Dec-2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: BASO 4 LVENT
Synonyms: None
Chemical Family: Blend
Application: Scale Remover

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

| Substances | CAS Number | PERCENT | ACGIH TLV-TWA | OSHA PEL-TWA |
|---------------------|-------------------|----------------|----------------------|---------------------|
| Oxalic acid salt | | 5 - 10% | Not applicable | Not applicable |
| Potassium hydroxide | 1310-58-3 | 0 - 1% | 2 mg/m ³ | Not applicable |

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory burns. May be harmful if swallowed.

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.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

| | |
|--|--|
| Flash Point/Range (F): | 201 |
| Flash Point/Range (C): | 94 |
| Flash Point Method: | TCC |
| 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 | 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 1, Reactivity 0 |
| HMIS Ratings: | Health 3, Flammability 1, Reactivity 0 |

6. ACCIDENTAL RELEASE MEASURES

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|---|---|
| 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. 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 oxidizers. Store away from acids. Store in a cool well ventilated area. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 24 months. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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|-------------------------------|---|
| Engineering Controls | Use in a well ventilated area. |
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| Respiratory Protection | Organic vapor respirator with a dust/mist filter. |
| | |
| Hand Protection | Impervious rubber gloves. Nitrile gloves. Neoprene gloves. |
| | |
| Skin Protection | Rubber apron. |
| | |
| 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 to pale yellow |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|----------------|
| Odor: | Odorless |
| pH: | 12-13 (5%) |
| Specific Gravity @ 20 C (Water=1): | 1.197 |
| Density @ 20 C (lbs./gallon): | 9.971 |
| Bulk Density @ 20 C (lbs/ft3): | Not Determined |
| Boiling Point/Range (F): | Not Determined |
| Boiling Point/Range (C): | Not Determined |
| Freezing Point/Range (F): | 25 |
| Freezing Point/Range (C): | -4 |
| Vapor Pressure @ 20 C (mmHg): | 17.8 |
| Vapor Density (Air=1): | > 1 |
| 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): | < 50 |
| 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 | Keep away from heat, sparks and flame. |
| Incompatibility (Materials to Avoid) | Strong oxidizers. Strong acids. |
| Hazardous Decomposition Products | Oxides of nitrogen. 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 burns. |
| Skin Contact | Causes severe burns. |
| Eye Contact | May cause eye burns. |
| Ingestion | Causes burns of the mouth, throat and stomach. May be harmful if swallowed. |
| Aggravated Medical Conditions | Skin disorders. |
| Chronic Effects/Carcinogenicity | No data available to indicate product or components present at greater than 1% are chronic health hazards. |
| 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

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|----------------------------------|----------------|
| Mobility (Water/Soil/Air) | Not determined |
| Persistence/Degradability | Not applicable |
| Bio-accumulation | Not determined |

Ecotoxicological Information

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|------------------------------------|----------------|
| Acute Fish Toxicity: | Not determined |
| Acute Crustaceans Toxicity: | Not determined |
| Acute Algae Toxicity: | Not determined |

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|----------------------------------|----------------|
| Chemical Fate Information | Not determined |
| Other Information | Not applicable |

13. DISPOSAL CONSIDERATIONS

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|-------------------------------|---|
| 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

UN3266,Corrosive Liquid, Basic, Inorganic, N.O.S.(Contains Potassium Oxalate, Potassium Hydroxide) , 8, III
NAERG 154

Canadian TDG

Corrosive Liquid, Basic, Inorganic, N.O.S.(Contains Potassium Oxalate, Potassium Hydroxide) , 8, UN3266, III

ADR

UN3266,Corrosive Liquid, Basic, Inorganic, N.O.S.(Contains Potassium Oxalate, Potassium Hydroxide) , 8, III

Air Transportation

ICAO/IATA

UN3266,Corrosive Liquid, Basic, Inorganic, N.O.S., 8, III
(Contains Potassium Oxalate, Potassium Hydroxide)

Sea Transportation

IMDG

UN3266,Corrosive Liquid, Basic, Inorganic, N.O.S.(Contains Potassium Oxalate, Potassium Hydroxide) , 8, III
EmS F-A, S-B

Other Transportation Information

Labels: Corrosive

15. REGULATORY INFORMATION

US Regulations

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|--|--|
| 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 |
| EPA SARA (313) Chemicals | This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372). |
| EPA CERCLA/Superfund Reportable Spill Quantity | EPA Reportable Spill Quantity is 1818 Gallons based on Potassium hydroxide (CAS: 1310-58-3). |
| 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 |
| 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 or are exempt. |
| WHMIS Hazard Class | E Corrosive Material 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.

Disclaimer Statement

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