

# MATERIAL SAFETY DATA SHEET

**Product Trade Name:** **CLAY CONTROL NEM**

**Revision Date:** 04-Jan-2011

## **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Trade Name:** CLAY CONTROL NEM

**Synonyms:** None

**Chemical Family:** Blend

**Application:** Clay Stabilization Agent

**Manufacturer/Supplier** Halliburton Energy Services

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## **2. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Substances</b>	<b>CAS Number</b>	<b>PERCENT</b>	<b>ACGIH TLV-TWA</b>	<b>OSHA PEL-TWA</b>
Polyamine		30 - 60%	Not applicable	Not applicable
Ammonium chloride	12125-02-9	1 - 5%	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Ethylene glycol	107-21-1	10 - 30%	100 mg/m <sup>3</sup>	50 ppm

## **3. HAZARDS IDENTIFICATION**

### **Hazard Overview**

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed. May cause birth defects.

## **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.

### **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

<b>Flash Point/Range (F):</b>	Not Determined	<b>Min: &gt; 150</b>
<b>Flash Point/Range (C):</b>	Not Determined	<b>Min: &gt; 65</b>
<b>Flash Point Method:</b>	PMCC	
<b>Autoignition Temperature (F):</b>	Not Determined	
<b>Autoignition Temperature (C):</b>	Not Determined	
<b>Flammability Limits in Air - Lower (%):</b>	Not Determined	
<b>Flammability Limits in Air - Upper (%):</b>	Not Determined	
<b>Fire Extinguishing Media</b>	Water fog, carbon dioxide, foam, dry chemical.	
<b>Special Exposure Hazards</b>	Decomposition in fire may produce toxic gases.	
<b>Special Protective Equipment for Fire-Fighters</b>	Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.	
<b>NFPA Ratings:</b>	Health 2, Flammability 1, Reactivity 0	
<b>HMIS Ratings:</b>	Health 2, Flammability 1, Reactivity 0	

## 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. 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. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 36 months.

## 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 with a dust/mist filter.

**Hand Protection** Impervious rubber 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

<b>Physical State:</b>	Liquid
<b>Color:</b>	Clear light yellow
<b>Odor:</b>	Mild amine
<b>pH:</b>	3-5.5

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity @ 20 C (Water=1):	1.07
Density @ 20 C (lbs./gallon):	8.91
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	212
Boiling Point/Range (C):	100
Freezing Point/Range (F):	-2
Freezing Point/Range (C):	-19
Vapor Pressure @ 20 C (mmHg):	48.3
Vapor Density (Air=1):	Not Determined
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):	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	None anticipated
Incompatibility (Materials to Avoid)	Strong oxidizers. Strong alkalis. Dehydrating agents.
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	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	Causes severe skin irritation.
Eye Contact	May cause severe eye irritation.
Ingestion	Causes burns of the mouth, throat and stomach. May cause heart, kidney and brain disorders.
Aggravated Medical Conditions	Skin disorders. Eye ailments. Liver disorders.
Chronic Effects/Carcinogenicity	Prolonged or repeated exposure may cause kidney damage. Prolonged or repeated exposure may cause reproductive system damage. Prolonged or repeated exposure may cause liver, heart, blood and brain damage. Prolonged or repeated exposure may cause embryo and fetus toxicity.
Other Information	None known.
Toxicity Tests	

<b>Oral Toxicity:</b>	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>	Slowly 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**

<b>DOT</b>
Not restricted

<b>Canadian TDG</b>
Not restricted

<b>ADR</b>
Not restricted

### **Air Transportation**

<b>ICAO/IATA</b>
Not restricted

## Sea Transportation

### IMDG

Not restricted

## Other Shipping Information

Labels: None

## 15. REGULATORY INFORMATION

### US Regulations

<b>US TSCA Inventory</b>	All components listed on inventory or are exempt.
<b>EPA SARA Title III Extremely Hazardous Substances</b>	Not applicable
<b>EPA SARA (311,312) Hazard Class</b>	Acute Health Hazard
<b>EPA SARA (313) Chemicals</b>	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: Ethylene Glycol//107-21-1 Ammonium Chloride//12125-02-9
<b>EPA CERCLA/Superfund Reportable Spill Quantity</b>	EPA Reportable Spill Quantity is 55494 Gallons based on Ammonium chloride (CAS: 12125-02-9).
<b>EPA RCRA Hazardous Waste Classification</b>	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
<b>California Proposition 65</b>	All components listed do not apply to the California Proposition 65 Regulation.
<b>MA Right-to-Know Law</b>	One or more components listed.
<b>NJ Right-to-Know Law</b>	One or more components listed.
<b>PA Right-to-Know Law</b>	One or more components listed.
<b>Canadian Regulations</b>	
<b>Canadian DSL Inventory</b>	All components listed on inventory.
<b>WHMIS Hazard Class</b>	D2A Very 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\*\*\***