

MATERIAL SAFETY DATA SHEET**Product Trade Name:** Clayfix 3**Revision Date:** 19-Nov-2013**Revision Number:** 4**1. PRODUCT AND COMPANY IDENTIFICATION****Product Identifier**

Product Trade Name: Clayfix 3
Synonyms: None
Chemical Family: Salt Solution
Internal ID Code: HM006212

Product Use

Application: Additive

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services
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Calgary, AB
T2P 4G8
Canada

Emergency Telephone Number (281) 575-5000

Prepared By

Chemical Compliance
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2. HAZARD(S) IDENTIFICATION**WHMIS Classification**

WHMIS Hazard Class Un-Controlled

WHMIS Symbol(s)

Summary of hazards of the product

Hazard Overview May cause mild eye, skin, and respiratory irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry Number	Filing Date
Sodium chloride	7647-14-5	10 - 30%	Not applicable	Not applicable

4. FIRST AID MEASURES

Description of first aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Skin	Wash with soap and water. Get medical attention if irritation persists.
Ingestion	If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

Most important symptoms and effects, both acute and delayed

May cause mild eye, skin, and respiratory irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE FIGHTING MEASURES

Extinguishing media**Suitable Extinguishing Media**

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance or mixture**Special Exposure Hazards**

Not applicable.

Advice for firefighters**Special Protective Equipment for Fire-Fighters**

Not applicable.

Hazardous combustion products

None known.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions and emergency procedures**Protective Equipment**

Use appropriate protective equipment.

Environmental Precautionary Measures

Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption

Scoop up and remove.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with eyes, skin, or clothing.

Conditions for safe storage and Incompatible materials for storage

Store in a cool, dry location. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits**Exposure Limits**

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
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Sodium chloride	7647-14-5	Not applicable	Not applicable
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Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area.

Personal Protective Equipment (PPE)**Respiratory Protection**

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:

Dust/mist respirator. (N95, P2/P3)

Hand Protection

Impervious rubber gloves.

Skin Protection

Normal work coveralls.

Eye Protection

Wear safety glasses or goggles to protect against exposure.

Other Precautions

None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State: Liquid
Odor: Odorless

Color: Clear to hazy
Odor Threshold: No information available

Property

Remarks/ - Method

Values**pH:**

6.3 - 7.1

pH Concentration of Solution:

No information available.

Freezing Point/Range

No information available.

Melting Point/Range

No information available.

Boiling Point/Range (C):

No information available.

Flash Point/Range (C):

> 93

Flash Point Method:

No information available.

Autoignition Temperature (C):

No information available.

Flammability Limits in Air - Lower (%):

No information available.

Flammability Limits in Air - Upper (%):

No information available.

Evaporation Rate (Butyl Acetate=1):

No information available.

Vapor Pressure @ 20 C (mmHg):

747 (100C)

Vapor Density (Air=1):

No information available.

Specific Gravity @ 20 C (Water=1):

1.18

Solubility in Water (g/100ml):

Soluble

Solubility in other solvents

No information available.

Partition Coefficient/n-Octanol/Water:

No information available.

Decomposition Temperature (C):

No information available.

Viscosity

No information available

Explosive Properties

No information available

Oxidizing Properties

No information available

Other Information**Molecular Weight (g/mole):**

No information available.

VOC Content (%)

No information available

10. STABILITY AND REACTIVITY

Conditions of Reactivity**Conditions to Avoid**

None anticipated

Hazardous Polymerization: Will Not Occur

Chemical Stability
Stable

Sensitivity to Static Discharge
Not available

Sensitivity to Mechanical Impact
Not available

Incompatible materials
Strong acids. Strong oxidizers. Bromine trifluoride. Sulfuric acid.

Hazardous Decomposition Products
None known.

11. TOXICOLOGICAL INFORMATION

Routes of entry
Eye or skin contact, inhalation.

Information on Toxicological Effects
Acute effects from exposure

<u>Inhalation</u>	May cause mild respiratory irritation.
<u>Eye Contact</u>	May cause mild eye irritation.
<u>Skin Contact</u>	May cause mild skin irritation.
<u>Ingestion</u>	In large amounts: May cause abdominal pain, vomiting, nausea, and diarrhea. May affect the heart and cardiovascular system.

Chronic effects from exposure
Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are chronic health hazards.

Irritancy of product
Irritation Non-irritating to the skin Non-irritating to the eye

Sensitization of product
Sensitization Did not cause sensitization on laboratory animals

Mutagenicity
Mutagenic Effects Not regarded as mutagenic

Carcinogenicity
Carcinogenic Effects No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

Reproductive Toxicity
Reproductive Toxicity This product does not contain any known or suspected reproductive hazards

Teratogenicity/embryotoxicity
Teratogenic Not a confirmed teratogen or embryotoxin.

Toxicologically synergistic material **Sodium chloride:** In animal studies, sodium chloride has increased cancer (stomach, tracheal) initiated by exposure to known carcinogens (carcinogens not reported).

Acute Toxicity

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium chloride	7647-14-5	3 g/kg (Rat)	10 g/kg (Rabbit)	42 g/m ³ (Rat) 1 h

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sodium chloride	7647-14-5	No information available	TLM96: > 1000 mg/l (Oncorhynchus mykiss)	No information available	TLM96: > 1,000,000 ppm (Mysidopsis bahia)

Persistence and Degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation potential

Does not bioaccumulate

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

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

Canadian TDG

UN Number: Not restricted.
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable

IATA/ICAO

UN Number: Not restricted.
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable

IMDG/IMO

UN Number: Not restricted.
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable

Special Precautions for User

None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Regulations

Canadian DSL Inventory

All components listed on inventory or are exempt.

WHMIS Hazard Class

Un-Controlled

WHMIS Symbol(s)

US Regulations

US TSCA Inventory

All components listed on inventory or are exempt.

16. OTHER INFORMATION

Preparation Information

Prepared By

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e-mail: fdunexchem@halliburton.com

Revision Date:

19-Nov-2013

Not applicable

Additional Information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

Key or legend to abbreviations and acronyms

WHMIS: Workplace Hazardous Materials Information System

Key literature references and sources for data

www.ChemADVISOR.com/

Disclaimer Statement

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