

MATERIAL SAFETY DATA SHEET**Product Trade Name:** CAT-3 ACTIVATOR**Revision Date:** 25-Aug-2014**Revision Number:** 17**SECTION 1. Product and Company Identification****Product Identifier**

Product Trade Name: CAT-3 ACTIVATOR
Synonyms: None
Chemical Family: Blend
Internal ID Code: HM000179

Product Use

Application: Activator

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services
645 - 7th Ave SW Suite 2200
Calgary, AB
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Canada

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Prepared By

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SECTION 2. Hazard(s) Identification**WHMIS Classification**

WHMIS Hazard Class D2B Toxic Materials

WHMIS Symbol(s)**Summary of hazards of the product**

Hazard Overview May cause eye irritation May be harmful if swallowed.

SECTION 3: Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry Number	Decision Granted Date
EDTA/Copper chelate	Proprietary	10 - 30%	8932	July 29, 2014

SECTION 4. First aid measures

Description of first aid measures**Inhalation**

If inhaled, remove to fresh air. If not breathing give artificial respiration (AR), preferably mouth-to-mouth. If breathing is difficult, oxygen should be given by trained personnel. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Get medical attention.

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

Do not induce vomiting. Never give anything by mouth to an unconscious person. If breathing has stopped, trained personnel should begin rescue breathing / artificial respiration (AR) immediately. If the heart has stopped, trained personnel should begin CPR immediately. Obtain medical attention immediately.

Most important symptoms and effects, both acute and delayed

May cause eye irritation

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically

SECTION 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**

Decomposition in fire may produce toxic gases.

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

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Hazardous combustion products

Oxides of nitrogen. Ammonia. Hydrogen cyanide. Carbon monoxide and carbon dioxide.

SECTION 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

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

SECTION 7. Handling and Storage**Precautions for safe handling**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

Conditions for safe storage and Incompatible materials for storage

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 24 months.

SECTION 8: Exposure Controls/Personal Protection

Occupational Exposure Limits Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
EDTA/Copper chelate	Proprietary	1 mg/m ³	1 mg/M3

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

Personal Protective Equipment (PPE)

Respiratory Protection Ammonia respirator with a dust/mist filter.
Hand Protection Impervious rubber gloves.
Skin Protection Normal work coveralls.
Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions Eyewash fountains and safety showers must be easily accessible.

SECTION 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid
Odor: Ammonia

Color: Clear blue
Odor Threshold: No information available

Property

Remarks/ - Method

Values

pH: 8.5-9.5
pH Concentration of Solution: No information available.
Freezing Point/Range - 6.7 °C
Melting Point/Range No information available
Boiling Point/Range (C): No information available.
Flash Point/Range (C): > 85 °C
Flash Point Method: PMCC
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): No information available.
Vapor Density (Air=1): No information available.
Specific Gravity @ 20 C (Water=1): 1.06
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

SECTION 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 oxidizers.

Hazardous Decomposition Products

Oxides of nitrogen. Ammonia. Hydrogen cyanide. Carbon monoxide and carbon dioxide.

SECTION 11. Toxicological Information**Routes of entry**

Eye or skin contact, inhalation.

Information on Toxicological Effects**Acute effects from exposure****Inhalation**

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause eye irritation

Skin Contact

May cause skin irritation.

Ingestion

May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.

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**

May cause eye irritation

Sensitization of product**Sensitization**

Not confirmed to cause skin or respiratory sensitization.

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 Not available**Acute Toxicity**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
EDTA/Copper chelate	Proprietary	No data available	No data available	No data available

SECTION 12. Ecological Information

Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
EDTA/Copper chelate	Proprietary	No information available	No information available	No information available	No information available

Persistence and Degradability

Not readily biodegradable

Bioaccumulation potential

No information available

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

SECTION 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.

SECTION 14. Transport Information

Canadian TDG ul0

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

IATA/ICAO

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

IMDG/IMO

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

Special Precautions for User: None

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

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SECTION 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

D2B Toxic Materials

WHMIS Symbol(s)**US Regulations****US TSCA Inventory**

All components listed on inventory or are exempt.

SECTION 16. Other Information**Preparation Information****Prepared By**

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Revision Date:

25-Aug-2014

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/

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END OF MSDS