


Safety Data Sheet

Section 1. Identification	
Product Identifier	Brine Buffer
	Revision: 3 Effective Date: 2015/12/16
Initial Supplier Identifier	Blackstone Drilling Fluids Limited Suite 700-215 9 Avenue SW Calgary, AB, T2P 1K3 Tel: 403-262-5955
Recommended Use	Drilling fluid additive pH Control
Restrictions on Use	None
Other means of Identification (Product family, synonyms, etc.)	Blend
24 Hour Emergency	CAN-UTEC (226-8832), 613-996-6666 or *666 on a cellular phone. Contact 403.262.5955. Restrictions: business hours Monday – Friday 8:00AM-4:00PM MST. After business hours you will be forwarded to an on-call service which may be unreachable.

Section 2. Hazard Identification	
Classification	Classification Flammable liquid - Category 4; Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Acute toxicity (Inhalation) Category 4; Skin corrosion Category 1; Serious eye damage Category 1; Specific target organ toxicity
Label Elements	
Symbol(s)	
Signal Word	Danger
Hazard Statement(s)	H227 Combustible liquid. H332 Harmful if inhaled. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.
Precautionary Prevention Statement(s)	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands and skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection.

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Precautionary Storage Statement(s)	P403 Store in a well-ventilated place.
Precautionary Disposal Statement(s)	P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.
Other Hazards	N/A

Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Alkoxylated amine	N/A	141-43-05	60-100
Balance of ingredients are considered non-hazardous.			

Section 4. First-Aid Measures

Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Skin Contact	Quickly and gently blot or brush away excess chemical. Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Seek medical attention if irritation develops or persists.
Eye Contact	Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Seek medical attention if irritation develops or persists.
Ingestion	Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Seek medical attention.
Most Important Symptoms and Effects Both Acute and Delayed	If on skin: symptoms may include pain, local redness and tissue damage. If in eyes: may cause severe irritation and possible corneal injury
Immediate Medical Attention and Special Treatment	Chemical eye burns may require extended irrigation. If burn is present, treat as any thermal burn, after decontamination. Seek medical attention immediately.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Media	Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
Unsuitable Extinguishing Media	Non-Known
Specific Hazards Arising from the Product	During fire, smoke may contain the original material in addition to toxic and/or irritating gases (nitrogen oxide, carbon monoxide).

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Special protective equipment and precautions for fire-fighters	Fight fire from a safe distance or a protected location. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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Section 6. Accidental Release Measures

Personal Precautions	Increase ventilation to area or move leaking container to a well-ventilated and secure area.
Protective Equipment	Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient
Emergency Procedures	Do not allow into any sewer, on the ground or into any waterway.
Methods and Materials for Containment and Clean-Up	Stop or reduce leak if safe to do so. Contain spill with clay, vermiculite, diatomaceous earth, sand, or absorbent material which does not react with spilled material. Remove or recover liquid using pumps or vacuum equipment. Store recovered product in suitable containers that are: tightly covered.

Section 7. Handling and Storage

Precautions For Safe Handling	Wear personal protective equipment to avoid direct contact with this chemical. Immediately report leaks, spills or failures of the safety equipment (e.g. Ventilation system). Avoid generating vapours or mists. Prevent uncontrolled release of product. Prevent accidental contact with incompatible chemicals. Do not use near welding operations or other high energy sources. Do not weld, cut or perform hot work on empty container until all traces of product have been removed. Keep containers tightly closed when not in use or empty.
Conditions For Safe Storage	Store in an area that is: dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard). Keep amount in storage to a minimum. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Store in a closed container.
Incompatible Materials	Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid), halogenated compounds (e.g. trichloroethylene), metals (e.g. aluminium).

Section 8. Exposure Controls and Personal Protection						
Control Parameters						
	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical name	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Ethanolamine	3ppm	6 ppm	3 ppm			
Appropriate Engineering Controls	Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Exhaust directly to the outside, taking any necessary precautions for environmental protection. Provide eyewash and safety shower if contact or splash hazard exists.					
Individual Protective Measures						
Eye / Face Protection	Wear chemical safety goggles and face shields when contact is possible					
Skin Protection	Chemically resistant gloves boots and aprons should be used. Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirt and pants, coveralls) consideration must be given both to durability as well as permeation resistance. The following materials should NOT be used: nitrile rubber, polyvinyl chloride.					
Respiratory Protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.					

Section 9. Physical and Chemical Properties	
Physical state	Liquid
Color	Colorless to Amber
Odour	Ammonia-like
Melting Point / Freezing point	Not available
Boiling Point and Boiling Range	171°C
Flammability	Not available
Lower Flammable or Explosive Limit	Not available
Upper Flammable or Explosive Limit	Not available
Flash point	> 86°C
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
pH	11
Kinematic viscosity	Not available
Solubility	Fully miscible
Partition co-efficient, n-Octanol/Water	Not available
Vapour pressure	Not available
Relative density	1-1.05 at 15°C

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Particle Characteristics	Not available
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Section 10. Stability and Reactivity	
Reactivity	No data
Chemical Stability	Normally stable
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	Open flames, sparks, static discharge, High temperatures. Temperatures above 85.0 °C, and other ignition sources.
Incompatible Materials	Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid), halogenated compounds (e.g. trichloroethylene), metals (e.g. aluminium).
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use.

Section 11. Toxicological Information	
Likely Routes of Exposure	Inhalation; skin contact; eye contact; ingestion.
Symptoms related to physical, chemical, and toxicological characteristics	
Inhalation:	Toxic, can cause death.
Ingestion:	Harmful May cause severe irritation or burns to the mouth, throat and stomach.
Skin:	May cause skin irritation.
Eyes:	May irritate or burn the eyes. Permanent damage including blindness may result.
Delayed and immediate effects	No data
Chronic effects from short term exposure	No data
Chronic effects from long term exposure	No data
Acute Toxicity Estimates (ATE)	
Chemical name	Ethanolamine
LD50 Oral	1970 mg/kg (male rat)
LD50 Dermal	1025 mg/kg (rabbit)
LC50 Inhalation	No data

Section 12. Ecological Information	
Ecotoxicity	No data
Persistence and Degradability	No data
Bioaccumulative Potential	No data
Mobility in Soil	No data
Other adverse effects	No data

Section 13. Disposal considerations	
Disposal Considerations	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14. Transport Information	
Not regulated under Canadian TDG regulations.	
UN Number	UN 2491
UN Proper Shipping Name	Ethanolamine; or Ethanolamine Solution
Transport Hazard Class(es)	8
Packaging Group	III
Environmental Hazards	N/A
Special Precaution	N/A

Section 15. Regulatory Information	
Safety, health, and environmental regulations specific to product	Canada – DSL Inventory All components of this product are on the Domestic Substances List (DSL). USA - All components of this product are on the Toxic Substances Control Act (TSCA) Inventory List.

Section 16. Other Information	
Prepared by:	Blackstone Drilling Fluids Ltd. Technical Department
Date Prepared:	2025/12/18
Date of Latest Revision:	2025/12/18
Revision Notes:	Updated formatting, address, and emergency contact info in Section 1. All sections reviewed and revised in accordance with current WHMIS standard requirements.

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards

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and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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