



Section 1. Identification		
Product Identifier	Blackstone Liquid Caustic	Version: 2 Effective Date: 2021/09/29
Other Means of Identification	None	
Initial Supplier Identifier	Blackstone Drilling Fluids Limited 215 9 th Avenue, Suite 700 Calgary, AB T2P 3S2 Tel: 403-262-5955	
Recommended Use and Restrictions On Use	Drilling fluid additive. No restrictions.	
Product Family	Blend	
24 Hour Emergency	Canutec (613) 996-6666	

Section 2. Hazard Identification	
Hazard Classification	 
Physical Hazard	Not classified
Health Hazard	Acute toxicity (oral) – Category 4 Skin Corrosion – Category 1A Serious eye damage/irritation – Category 1 Acute hazards to the aquatic environment – Category 3
Signal Word	Danger!
Hazard Statement	Harmful if swallowed. Causes severe skin burns and eye irritation. Causes serious eye irritation.
Precautionary Prevention Statement	Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection.
Precautionary Response Statement	IF SWALLOWED: call a Poison Center or doctor/physician if you feel unwell. Rinse mouth. If ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present or easy to do. Continue rinsing. Immediately call Poison Centre or doctor/physician. Wash contaminated clothing before reuse.
Precautionary Storage Statement	Store in well ventilated place.

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Precautionary Disposal Statement	Dispose of contents/container to an approved waste disposal plant.
Other Hazards	None

Section 3. Composition / Information on Ingredients			
Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Sodium hydroxide	Caustic soda	1310-73-2	35 -45
Alkoxylated amine	N/A	68953-70-8	5-15
Balance of ingredients are considered non-hazardous and constitute a proprietary blend			

Section 4. First-Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Wash with water and soap.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Rinse mouth with water if conscious. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate 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 – 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.

Section 5. Fire-Fighting Measures	
Suitable and Unsuitable Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Hazardous Combustion Products	Oxides of carbon and nitrogen.
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).
Special Protective Equipment and Precautions For Fire-Fighters	Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

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Section 6. Accidental Release Measures	
Personal Precautions, Protective Equipment and Emergency Procedures	Long chemical resistant rubber gloves, Chemical splash goggles and face shield, Chemical resistant safety boots, Chemical suit, or Chemical apron, Optional -Respirator. Evacuate all unnecessary personnel. Secure area. Ensure adequate ventilation.
Environmental Precautions	Prevent from entering soil, ditches, sewer, waterways.
Methods and Materials For Containment and Clean-Up	Soak or pump-up split material. Use clay, vermiculite or diatomaceous earth to soak up spilled material. Place in a suitable container for disposal. Wash area with soap and water to remove residues which can cause a slip hazard.

Section 7. Handling and Storage	
Precautions For Safe Handling	Handle with care. Container, even those emptied, may contain vapours. Avoid breathing vapour. Wash skin thoroughly after handling.
Conditions For Safe Storage	Keep containers closed when not in use.

Section 8. Exposure Controls and Personal Protection				
Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Sodium hydroxide	2ppm		2 ppm	
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Ensure adequate ventilation. Ensure safety shower and eye wash station are available.			
Individual Protective Measures				
Eye / Face Protection	Safety glasses.			
Skin Protection	Nitril gloves.			
Respiratory Protection	Should be worn when exposure limits are exceeded. The following should be effective types of air-purifying respirators. Organic vapor cartridge.			

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Section 9. Physical and Chemical Properties	
Appearance	Colourless liquid
Odour	none
Odour Threshold	Not data
pH (1% solution)	14
Flash Point	>93 °C
Boiling Point and Boiling Range	Not data
Melting Point / Freezing point	-20 °C
Evaporation Rate	Not data
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	No data
Vapour Pressure	Not data
Vapour Density	Not data
Relative Density	1.40
Solubility	Fully miscible
Partition co-efficient, n-Octanol/Water	No data
Auto-ignition Temperature	Not available
Decomposition Temperature	No data
Viscosity	No data

Section 10. Stability and Reactivity	
Reactivity	Stable.
Chemical Stability	The product is stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Elevated temperatures or fire conditions (this material will burn if sufficient heat is applied).
Incompatible Materials	Strong oxidisers.
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use.

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Section 11. Toxicological Information	
Component Toxicity	LD50 Oral LD50 Dermal LC50 Inhalation
Sodium Hydroxide	ATEmix (): 353.488372 mg/kg (oral)
Likely Routes of Exposure	
Skin:	May cause burns.
Eyes:	May cause several irritation with corneal injury.
Inhalation:	Respiratory tract irritation.
Ingestion:	Ingestion may result in gastrointestinal irritation, burns of the mouth and throat.
Acute Toxicity Estimates (ATE)	Toxic if swallowed.
STOT (Specific Target Organ Toxicity) – Single Exposure	Not classified
Aspiration Toxicity	Not classified
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not classified
Skin Corrosion / Irritation	May cause burns
Serious Eye Damage / Irritation	Severe irritant
Respiratory or Skin Sensitization	None expected
Carcinogenicity	Not listed.
Reproductive Toxicity	
- Sexual Function and Fertility	Not classified
- Development of Offspring	Not classified
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Not classified
Interactive Effects	None
Other Information	N/A

Section 12. Ecological Information	
Ecotoxicity	LC 50 (Western mosquitofish (<i>Gambusia affinis</i>), 24 h): 125 mg/l Mortality LC 50 (Guppy (<i>Poecilia reticulata</i>), 24 h): 145 mg/l Mortality LC 50 (Goldfish (<i>Carassius auratus</i>), 24 h): 160 mg/l Mortality LC 50 (Bony fish superclass (<i>Osteichthyes</i>), 48 h): 33 - 100 mg/l Mortality LC 50 (Western mosquitofish (<i>Gambusia affinis</i>), 48 h): 125 mg/l Mortality

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Persistence and Degradability	Will not persist.
Bioaccumulative Potential	Not expected to bio accumulate
Biodegradability	No data
Mobility in Soil	No data
Other Adverse Effects	N/A

Section 13. Disposal considerations

Disposal Considerations	Dispose of contents / container in accordance with local regulations.
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Section 14. Transport Information

UN Number	1824
UN Proper Shipping Name	Sodium Hydroxide Solution
Transport Hazard Class(es)	8
Packaging Group	II
Environmental Hazards	Yes
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	Not applicable

Section 15. Regulatory Information

Canada – DSL Inventory	All components of this product are on the Domestic Substances List (DSL)
TSCA	All components of this product are on the Toxic Substances Control Act (TSCA) Inventory List
Additional Information	None

Section 16. Other Information

NFPA Rating	Health-2/ Flammability-1/Reactivity-1/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-1/Reactivity-1/Personal Protection-See Section 8.
Prepared by:	Blackstone Drilling Fluids, Technical Department
Date Prepared:	2021/09/29
Date of Latest Revision:	