Blackstone DRILLING FLUIDS LIMITED
Suite 500, 215 9th Avenue SW, Calgary, AB T2P 1K3

Safety Data Sheet

Section 1. Identification		
Product Identifier	Oxygen Scav-L	**Revision: 3** **Effective Date: 2025/12/03**
Initial Supplier Identifier	Blackstone Drilling Fluids Limited Suite 700-215 9 Avenue SW Calgary, AB, T2P 1K3 Tel: 403-262-5955	
Recommended Use **Restrictions on Use**	N/A N/A	
Other means of Identification (Product family, synonyms, etc.)	Oxygen Scavenger	
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	**Physical:** Flammable Liquid - Category 3 **Health:** Acute Toxicity - Category 4, Inhalation Acute Toxicity - Category 4, Dermal Acute Aquatic Toxicity - Category 2 Chronic Aquatic Toxicity - Category 2 Skin Irritation – Category 2 Eye Irritation – Category 2 Skin Sensitizer – Category 1B
Label Elements	
Symbol(s)	
Signal Word	Warning
Hazard Statement(s)	H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction H319 Causes serious eye irritation. H332 Harmful if inhaled. H312 Harmful in contact with skin

	H401 Hazardous to the aquatic environment, acute hazard H411 Hazardous to the aquatic environment, long-term hazard
Precautionary Prevention Statement(s)	P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion proof [electrical/ventilating/lighting/…] equipment P242 Use non-sparking tools. P243 Take action to prevent static discharges. P280 Wear protective gloves/protective clothing/eye protection/face protection. P261 Avoid breathing dust/fumes/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment.
Precautionary Response Statement(s)	P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. P337 + P313 If eye irritation persists: Get medical advice/attention. P370 + P378 In case of fire: Use alcohol-resistant foam, water spray, carbon dioxide (CO2), dry chemical to extinguish. P302 + P352 IF ON SKIN: Wash with plenty of water. P332 + P313 If skin irritation occurs: Seek medical attention. P312 Seek medical attention if you feel unwell. P362 + P364 Take off contaminated clothing and wash it before reuse. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P321 Specific treatment (see on this label)
Precautionary Storage Statement(s)	P403 + P235 Store in a well-ventilated place. Keep cool.
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**
N, N-diethylhydroxylamine	Amine	3710-84-6	30-60
Ethanol,2,2'-oxybis-,reactionproductswithammonia,morpholinederivs	Amine Derivative	68999-77-3	20-40
*Balance of ingredients is non-hazardous and constitutes a proprietary blend.			

Section 4. First-Aid Measures	
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Do not give mouth-to-mouth. Seek medical attention. Symptoms may be delayed
Skin Contact	Wash off immediately with plenty of water. Remove and wash contaminated clothing. If skin irritation persists, seek medical attention.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. If victim is conscious. Rinse mouth, drink one or two glasses of water. Immediate medical attention is required.
Most Important Symptoms and Effects Both Acute and Delayed	Symptoms listed may be delayed.
Immediate Medical Attention and Special Treatment	Seek medical attention immediately as advised for each route of exposure.

Section 5. Fire-Fighting Measures	
Suitable Extinguishing Media	Alcohol-resistant foam, water spray, carbon dioxide (CO2), dry chemical
Unsuitable Extinguishing Media	N/A
Specific Hazards Arising from the Product	Flammable. Eliminate all ignition sources if safe to do so. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Pay attention to flashback. Fire or intense heat may cause violent rupture of packages. In case of fire hazardous decomposition products may be produced such as nitrogen oxides (NOx), ammonia, and carbon monoxide.
Special protective equipment and precautions for fire-fighters	Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent).

Section 6. Accidental Release Measures	
Personal Precautions	Avoid contact with skin, eyes and clothing. In case of inadequate ventilation wear respiratory protection. Remove all sources of ignition.

	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Take precautionary measures against static discharges. Pay attention to flashback. Suppress (knock down) gases/vapors/mists with a water spray jet. Do not use sparking tools.
Protective Equipment	Respiratory protection, eyeglasses, FR coveralls, latex chemical resistant gloves, steel toed boots, ventilation if in a closed environment.
Emergency Procedures	
Methods and Materials for Containment and Clean-Up	Use only non-sparking tools. Large spills should be collected mechanically (remove by pumping) for disposal. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Keep in suitable, closed containers for disposal. Dispose of as special waste in compliance with local and national regulations.

Section 7. Handling and Storage	
Precautions For Safe Handling	In accordance with local and national regulations. Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from open flames, hot surfaces, and sources of ignition. Protect containers from physical damage. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
Conditions For Safe Storage	In accordance with local and national regulations. Use only in area provided with appropriate exhaust ventilation. Ensure that eyewash stations and safety showers are close to the workstation location. Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapors or spray mist. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Ground and bond containers when transferring material. Do not use sodium nitrite or other nitro sating agents in product. Empty containers retain product residue and may be hazardous. Wash thoroughly after handling.
Incompatible Materials	Strong acids and oxidizing agents, mineral acid, peroxides.

Section 8. Exposure Controls and Personal Protection	
Control Parameters	Components with workplace control parameters: Reference Engineering Measures, Respiratory Protection, Eye Protection and Hand Protection listed below. Components CAS-No: HMIRA Reg # 9856 Value type (Form of exposure): Airborne. Control parameters / Permissible concentration Basis TWA 2 ppm ACGIH
Appropriate Engineering Controls	Good general ventilation used with local exhaust (typically 10 air changes per hour). Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below

	recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual Protective Measures	
Eye / Face Protection	Safety glasses with side shields. face shield, skin and body protection, complete suit protecting against chemicals.
Hand Protection	Rubber gloves, Neoprene gloves, the data about break through time/strength of material are standard values! The exact break through time/strength of material must be obtained from the producer of the protective glove.
Respiratory protection	Use respiratory protection unless adequate local exhaust ventilation is provided, or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Section 9. Physical and Chemical Properties	
Physical state	Liquid
Color	Brown
Odour	Slight amine
Melting Point / Freezing point	No data
Boiling Point and Boiling Range	No data
Flammability	See section 5
Lower Flammable or Explosive Limit	No data
Upper Flammable or Explosive Limit	No data
Flash point	49°C closed cup
Auto-ignition Temperature	>250°C
Decomposition Temperature	No data
pH	11-12
Kinematic viscosity	No data
Solubility	Water soluble
Partition co-efficient, n-Octanol/Water	No data
Vapour pressure	No data
Relative density	No data
Particle Characteristics	A composite mixture of fine to coarse particles.

Section 10. Stability and Reactivity	
Reactivity	Product slowly corrodes copper, aluminium, zinc, and galvanized surfaces.
Chemical Stability	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of Hazardous Reactions	Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition.
Incompatible Materials	Strong acids and oxidizing agents, peroxides. Do not use sodium nitrite or other nitro sating agents in product.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapours. Nitrogen oxides (NOx), carbon monoxide, carbon dioxide (CO2), ammonia.

Section 11. Toxicological Information	
Likely Routes of Exposure Symptoms related to physical, chemical, and toxicological characteristics	
Inhalation	May cause irritation of the mucous membranes. May cause irritation of respiratory tract.
Ingestion	May cause irritation of the mucous membranes. May cause gastrointestinal irritation.
Skin	Slight irritation. May be absorbed through the skin in harmful amounts.
Eyes	Contact with eyes may cause irritation.
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	Oxygen-Scav-L
LD50 Oral	>2000 mg/kg
LD50 Dermal	>1300 mg/kg
LC50 Inhalation	11 mg/l

Section 12. Ecological Information	
Ecotoxicity	No data
Persistence and Degradability	LC50/96h/guppy = > 130 mg/l EC50/48h/daphnia = 8.0 mg/l Toxicity to algae - EC10 (72h) : 25 mg/l Toxicity to bacteria - EC10 : 100 mg/l
Bioaccumulative Potential	Minimum
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	
UN Number	UN1993, FLAMMABLE LIQUIDS, N.O.S. (Ethanamine), 3, III
UN Proper Shipping Name	UN1993, FLAMMABLE LIQUIDS, N.O.S. (Ethanamine), 3, III
Transport Hazard Class(es)	UN1993, FLAMMABLE LIQUIDS, N.O.S. (Ethanamine), 3, III
Packaging Group	UN1993, FLAMMABLE LIQUIDS, N.O.S. (Ethanamine), 3, III
Environmental Hazards	Marine Pollutant
Special Precaution	No data

Section 15. Regulatory Information	
Safety, health, and environmental regulations specific to product	Do not contaminate surface water. Avoid subsoil penetration.

Section 16. Other Information
Prepared by: Blackstone Drilling Fluids Ltd. Technical Department
Date Prepared: 2025/12/03
Date of Latest Revision: 2025/12/03
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 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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