

MATERIAL SAFETY DATA SHEET

DS 8000 SERIES PART B

I. 24-HOUR EMERGENCY CONTACT INFORMATION

CHEM-TEL United States.....800-255-3924
International.....813-248-0585

II. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Component Identification	CASRN	OSHA PEL	ACGIH TLV	% (by weight)
Amine Mixture ⁽¹⁾	Proprietary	None Established		100

⁽¹⁾ These materials are substantially incorporated into the mixture and exposure via inhalation is not likely to occur.

Product Description.....Amine

III. PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point.....> 482°F (250°C)
Melting Point.....Not Determined
Vapor Pressure.....< 1 mmHg @ 68°F (20°C)
Vapor Density (Air = 1).....7.6
Specific Gravity (Water = 1).....~1
Evaporation Rate (butyl acetate = 1).....Not Determined
pH.....Not Determined, Corrosive
Appearance and Odor.....Straw-Colored Liquid, Amine Odor
Odor Threshold.....Not Determined

IV. FIRE and EXPLOSION HAZARDS

Flash Point.....~245°F (250°C), Pensky-Martens Closed Cup
Autoignition Temperature.....Not Determined
LEL / UEL.....1.1 / 6.4
Extinguishing Media.....Dry Chemical, CO₂, Alcohol Foam, Water Fog
NFPA Ratings.....Health (3) – Flammability (1) – Reactivity (1)

Special Firefighting Procedures: Do not direct a solid stream of water into hot burning polls, this may cause frothing and increase fire intensity. Use self-contained breathing apparatus and protective clothing.

Fire and Explosion Hazards: During a fire, oxides of nitrogen may be produced.

V. REACTIVITY DATA

Stability.....Stable
Hazardous Polymerization.....Will not Occur
Conditions to Avoid.....Do not mix with nitrates or other nitrosating agents
Incompatibilities.....Oxidizers, Halogenated Organics, Aldehydes, Ketones
Hazardous Decomposition Products.....NO_x, CO and CO₂

VI. HEALTH HAZARD DATA

Route(s) of Entry: Inhalation.....Yes
Skin.....Yes
Ingestion.....Not Expected

Acute (Short-Term) Health Effects: This material is corrosive and irritating to the eyes, throat, and skin. Eye exposure may cause severe irritation with corneal injury that may result in permanent impairment, even blindness. Short-term skin exposure may cause severe burns and/or allergic skin reaction. Prolonged or widespread skin contact could result in the material being absorbed in harmful amounts. Inhalation of vapors may be irritating to the nose, throat, and chest causing runny nose and stuffiness, cough, and possibly difficulty breathing.

Chronic (Long-Term) Health Effects: Repeated or prolonged contact with the skin may cause dermatitis and skin sensitization.

Carcinogenicity: None of the chemicals in this product are classified as known of potential human carcinogens by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or OSHA.

Signs and Symptoms of Exposure: Signs and symptoms following exposure may include irritation and burning sensation to eyes, skin, and respiratory tract (if inhaled).

Medical Conditions Generally Aggravated by Exposure: Existing skin disorders may be aggravated upon exposure.

Emergency and First Aid Procedures:

- Inhalation:* Remove to fresh air if exposure symptoms develop and seek medical attention.
- Skin Contact:* Gently wash all affected skin areas thoroughly with water soap and water while removing contaminated clothing. If irritation persists or burning sensation is evident, seek medical attention.
- Eye Contact:* Flush eyes with water for 20 to 30 minutes. Obtain prompt medical attention, preferably from an ophthalmologist.
- Ingestion:* Not expected under normal use conditions. However, if ingestion does occur, do not induce vomiting. Give large amounts of water or milk and seek medical attention.

HMIS Ratings.....Health (3) – Flammability (1) – Reactivity (1)

VII. PRECAUTIONS FOR SAFE HANDLING and USE

Steps to be Taken in Case Material is Released or Spill: Due to the relatively small end-use container sizes, significant spills are unlikely. However, if a spill does occur, collect and place into a suitable container for disposal. Do not allow spilled materials to enter storm sewers, sanitary sewers, or impact ground water.

Waste Disposal Method: Disposal must be in accordance with applicable laws.

Precautions to be Taken in Handling and Storage: Copper and copper alloys should not be used for storage as the product may quickly corrode them.

VIII. CONTROL MEASURES

Respiratory Protection: None typically required for normal use. Self-contained breathing apparatus may be needed if product is used in a confined or poorly ventilated area.

Ventilation: A system of local and/or general exhaust is recommended.

Hand Protection: Gloves impervious to this material should be worn.

Eye Protection: ANSI-approved safety glasses with side shields or chemical goggles.

Other: Such clothing as to minimize or eliminate skin contact.

IX. REGULATORY INFORMATION (Not meant to be all-inclusive)

Hazardous Materials Transportation Act (HMTA)

When offered alone, this material should be classified as follows:

Proper Shipping Name.....Triethylenetetramine, Mixture
Hazard Class.....8
Identification Number.....UN2259
Packing Group.....II
Label Required.....Corrosive

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

This produce contains the following CERCLA Section 102(a) hazardous substance(s) as listed in 40 CFR 302.4:

Identity	CASRN	% (by weight)	Reportable Quantity (RQ)
None			

Superfund Amendment and Reauthorization Act (SARA)

This product contains the following SARA Title III Section 302 extremely hazardous substance(s) as listed in 40 CFR Part 355:

Identity	CASRN	% (by weight)
None		

SARA Title III Section 311/312 hazardous categorization:

This product has been reviewed according to the EPA hazard categories promulgated under SARA Title III Section 311 and 312 and is considered to meet the following hazard categories:

- An immediate (acute) health hazard
- A delayed (chronic) hazard

This product contains the following SARA Title III Section 313 toxic substance(s) as listed in 40 CFR Part 372:

Identity	CASRN	% (by weight)
None		

Toxic Substances Control Act (TSCA)

All ingredients are on the TSCA inventory or are not required to be on the inventory.

CATALYST / HARDENER INDEX

The material described in the MSDS is intended for use with the following:

DS 8000 SERIES PART A

Review literature supplied with product or contact NOV Fiber Glass Systems for proper mixing ratios.

National Oilwell Varco has produced this brochure for general information only, and it is not intended for design purposes. Although every effort has been made to maintain the accuracy and reliability of its contents, National Oilwell Varco in no way assumes responsibility for liability for any loss, damage or injury resulting from the use of information and data herein nor is any warranty expressed or implied. Always cross-reference the bulletin date with the most current version listed at the web site noted in this literature.

North America

17115 San Pedro Ave. Suite 200
San Antonio, Texas 78232 USA
Phone: 210 477 7500

South America

Avenida Fernando Simoes
Recife, Brazil 51020-390
Phone: 55 31 3501 0023

Europe

P.O. Box 6, 4190 CA
Geldermalsen, The Netherlands
Phone: 31 345 587 587

Asia Pacific

No. 7A, Tuas Avenue 3
Jurong, Singapore 639407
Phone: 65 6861 6118

Middle East

P.O. Box 17324
Dubai, UAE
Phone: 971 4881 3566