

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Identifier: **Produced Salt Water**
Synonyms: Injection Water, Produced Water
Product Use: Produced water, Injection water, (waste product)
Supplier: Altex Energy Ltd.
1100, 700 9th Avenue S.W
Calgary, Alberta T2P 3V4
403-508-7525

EMERGENCY TELEPHONE: 24 Hour Emergency Number - 403-540-4046
Back-up Number - 1-877-744-4030
Chemtrec: 1-800-424-9300
Canutec: 613-996-6666 or *666 Cellular

2. HAZARDS IDENTIFICATION

Routes of Entry

Skin Contact: Moderate
Eye Contact: Moderate
Ingestion: Major
Inhalation: Minor

Emergency Overview

Non potable water Low fire hazard
May contain harmful microorganisms or other unhealthful contaminants
The volatile petroleum component of the sour water can cause dizziness, nausea and headaches, symptoms of nervous system depression

Effects of Short-Term (Acute) Exposure

Inhalation: Vapours or mists from this material are not expected to cause irritation of the upper respiratory tract

Skin Contact: No skin irritation expected from short term exposure

Eye Contact: May cause transitory eye irritation, but not expected to cause prolonged or significant eye irritation

Ingestion: May cause gastrointestinal tract discomfort possibly leading to nausea, vomiting and diarrhea

Effects of Long Term (Chronic) Exposure: Prolonged or repeated exposure may lead to dermatitis

Medical Conditions Aggravated by Exposure: None known

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	% (w/w)	Exposure Limits ¹	LD ₅₀	LC ₅₀
Water (oily)	98-100	TLV-TWA: 5 mg/m ³ as oil mist	Not applicable	Not applicable
Sodium Chloride (CAS 7647-14-5)	Variable*	Not established	3000 mg/kg (rat/oral)	>10500 mg/m ³ (inhalation/rat, 1 hour)
Crude Oil (CAS 8002-05-9)	<.1-1	TLV-TWA: mg/m ³ as oil mist TLV-STEL: 10 mg/m ³ as oil mist	Not established	Not established
Benzene (CAS 71-43-2)	<.1-1	TLV-TWA: 0.5 ppm skin TLV-STEL: 2.5 ppm skin	930 mg/kg (rat/oral)	13700 ppm (rat/inhalation, 4 hours)

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ACGIH, American Conference of Governmental Industrial Hygienists

Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

*Note: The above components make up the majority of this product, but composition may vary

4. FIRST AID MEASURES

Eye Contact

Remove contact lenses if worn. Flush eyes with plenty of clean water, preferably at body temperature, holding eyelid(s) open. Take care not to contaminate other eye during the rinsing process. Seek medical attention.

Skin Contact

Wash exposed skin with soap and water. Remove contaminated clothing and launder before re-use. If irritation occurs, or persists, seek medical attention.

Inhalation

If adverse effects occur, remove victim to fresh air, restore or assist breathing if necessary. Obtain medical attention.

Ingestion

If swallowed, drink plenty of water. **DO NOT** induce vomiting. If vomiting occurs naturally, ensure head is lowered to prevent aspiration into the lungs. Never give anything by mouth to an unconscious person.

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5. FIRE FIGHTING MEASURES

Flash Point	Variable, but > 61°C
Auto-ignition temperature	Not determined
Lower Explosive Limit	Not determined
Upper Explosion Limit	Not determined
Sensitivity to Static Discharge	Not sensitive
Sensitivity to Impact	Not sensitive
Hazardous Combustion Products	Thermal decomposition or combustion products: oxides of carbon and sulphur dioxide
Extinguishing Media	Dry chemical, CO ₂ , water spray

6. ACCIDENTAL RELEASES MEASURES

Overview

Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Wear adequate personal protection and remove all sources of ignition. Notify all governmental agencies as required by law.

Personal Protection

Full face, positive pressure self-contained breathing apparatus or airline, and protective clothing must be worn. Protective firefighting structural clothing is not effective protection from methanol.

Environmental Precautions

Prevent entry into waterways or sewers. Slow to biodegrade in the environment.

Remedial Measures

Low hazard of flammability, but may contain flammable fractions. Eliminate all sources of ignition, stoop leak and use absorbent materials.

Large Spills

If necessary, contain spill by diking. Fluorocarbon alcohol resistant foams may be applied to spill to diminish vapour and fire hazard. Maximize crude recovery for recycling or reuse. Collect liquid with explosion proof pumps.,

Small Spills

Soak up spill with non-combustible absorbent material. Prevent spilled crude from entering sewers, confined spaces, drains or waterways. Restrict access to unprotected personnel. Put material in suitable, covered, labeled containers.

7. HANDLING & STORAGE

Handling Procedures

No smoking or open flame in storage, use or handling areas. Use explosion proof electrical equipment. Ensure proper electrical grounding procedures are in place.

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Storage

Store in totally enclosed equipment, designed to avoid ignition and human contact. Tanks must be grounded, vented and should have vapour emission controls. Tanks must be diked. Avoid storage with incompatible materials. Storage tanks of welded construction are normally satisfactory. They should be designed and build in conformance with good engineering practice for the material being stored.

Empty containers may contain toxic, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken to purge all hazards. Do not eat, drink or smoke in areas of use, production or storage. Use good hygiene practices and wash hands before eating, drinking, smoking or using toilet facilities.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls

In confined areas, local and general ventilation should be provided to maintain airborne concentrations below permissible exposure limits. Ventilation systems must be designed according to approved engineering standards.

Respiratory Protection

NIOSH approved supplied air respirator when airborne concentrations exceed exposure limits.

Skin Protection

Butyl and nitrile rubbers are recommended for gloves. Check with manufacturer. Wear chemical resistant pants and jackets, preferably of butyl or nitrile rubber. Check with manufacturer.

Eye & Face Protection

Face shield and chemical splash goggles when transferring is taking place.

Footwear

Chemical resistant and as specified by the workplace.

Other

Eyewash and showers should be located near work areas. NOTE: PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean, fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear to cloudy liquid	Boiling Point	~ 100 °C
Odour	Petroleum	Critical Temperature	Not Applicable
pH	6.46	Relative Density	~ 1.0

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Vapour Pressure	6 – 8	Evaporation Rate	Not Available
Solubility	Soluble	Partition Coefficient	Not Available
Vapour Density	Not Applicable	Solvent Solubility	Not Soluble
Freezing Point	~ 0 °C		

10. STABILITY & REACTIVITY

Chemical Stability

Stable at normal temperatures and pressures

Incompatibility

Avoid contact with acids or other materials that may react violently with water

Hazardous Decomposition Products

Excessive heating may produce harmful gases or vapours of carbon and nitrogen

Hazardous Polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Exposure	See Section 2
Chronic Exposure	See Section 2
Exposure Limits	See section 3
Irritancy	See Section 2
Sensitization	No
Carcinogenicity	Benzene, a component of crude oil is listed as a known carcinogen
Teratogenicity	Benzene crosses the placenta, but there is no conclusive report of fetus injury
Reproductive Toxicity	High occupational exposure to benzenes may be related to menstrual and reproductive problems in women
Mutagenicity	Many studies have found positive evidence of mutagenic effects in exposed workers, usually in those cases where exposure levels caused blood changes
Synergistic Products	Ethanol increases the blood changes caused by benzenes

12. ECOLOGICAL INFORMATION

Environmental Toxicity

No data

Biodegradability

No data

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13. DISPOSAL CONSIDERATIONS

Review federal, provincial or state and local government requirements prior to disposal. Store material for disposal as indicated in storage conditions.

14. TRANSPORT INFORMATION

Transport of Dangerous Goods: Not regulated
United States Department of Transport (49CFR): Not regulated
International Air Transport Association (IATA): Not regulated
International Maritime Organization (IMO): Not regulated

15. REGULATORY INFORMATION

Canadian Federal Regulations

CEPA, Domestic Substances List: Listed
WHMIS Classification: B3, D2A

16. OTHER INFORMATION

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