

# SAFETY DATA SHEET

## 1. Identification

### Identification

**Product name:** QUATREX™ 182 SURFACTANT

### Additional identification

**Chemical name:** 2 Alkyl-N-hydroxyl ethyl-N-benzyl-imidazoline chloride

### Recommended use and restriction on use

**Recommended use:** Oilfield Drilling and Exploration

**Restrictions on use:** None identified.

### Details of the supplier of the safety data sheet

#### Supplier

**Company Name:** LUBRIZOL CANADA LIMITED  
**Address:** 3700 STEELES AVENUE WEST SUITE 201  
VAUGHAN ON, L4L 8K8  
CA  
**Telephone:** 905.264.4646

### Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887 OR WITHIN CANADA 800 424 9300

## 2. Hazard(s) identification

### Hazard Classification

Flammable liquids	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Specific Target Organ Toxicity - Single Exposure	Category 3

### Unknown toxicity

Acute toxicity, oral	55.4 %
Acute toxicity, dermal	55.4 %
Acute toxicity, inhalation, vapor	59.4 %
Acute toxicity, inhalation, dust or mist	59.5 %

### Label Elements:

#### Hazard Symbol:



#### Signal Word:

Danger

**Hazard Statement:** Highly flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye damage.  
May cause drowsiness or dizziness.

**Precautionary Statements:**

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/] equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

**Response:** IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. Specific treatment (see this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor/ if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. In case of fire: Use CO<sub>2</sub>, dry chemical or foam for extinction. Water can be used to cool and protect exposed material.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### 3. Composition/information on ingredients

**Mixtures**

Chemical name	CAS number	Percent by Weight
2 Alkyl-N-hydroxyl ethyl-N-benzyl-imidazoline chloride	61791-52-4	50 - 60%
Isopropyl alcohol	67-63-0	40 - 50%
Alkyl imidazoline	61791-38-6	1 - 5%

### 4. First-aid measures

**Ingestion:** Rinse mouth. Get medical attention if symptoms occur.

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed.

**Skin Contact:** Take off immediately all contaminated clothing. Take off contaminated clothing and wash before re-use. Wash skin thoroughly with soap and water. If skin irritation occurs, get medical attention.

**Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor/...

**Most important symptoms/effects, acute and delayed**

**Symptoms:** See section 11.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically.

## 5. Fire-fighting measures

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** CO<sub>2</sub>, Dry chemical or Foam. Water can be used to cool and protect exposed material.

**Unsuitable extinguishing media:** Not determined.

**Specific hazards arising from the chemical:** Container may rupture on heating. Water or foam may cause frothing. Avoid solid streams of water. Use water spray. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations. Vapors may travel considerable distance to a source of ignition and flash back. Water may cause splattering. Container may rupture on heating. When heated, hazardous gases may be released including: hydrogen chloride and chlorine. See section 10 for additional information.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment. Ventilate area if spilled in confined space or other poorly ventilated areas. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.

**Methods and material for containment and cleaning up:**

In case of leakage, eliminate all ignition sources. Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Wash area with soap and water. Spilled liquid and dried film are slippery. Use care to avoid falls. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

**Environmental Precautions:**

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage**
**Precautions for safe handling:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Ground and bond container and receiving equipment. Use non-sparking tools. Do not get in eyes. Avoid contact with skin. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Launder contaminated clothing before reuse. Avoid prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using do not eat, drink or smoke. Stir well before use. Keep containers closed when not in use. Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

**Maximum Handling Temperature:**

Not determined.

**Conditions for safe storage, including any incompatibilities:**

Keep from freezing. Store in original container. Do not store in open, unlabeled or mislabeled containers. Keep container tightly closed. Keep cool. Store in a well-ventilated place. Do not store near potential sources of ignition.

**Maximum Storage Temperature:**

Not determined.

**8. Exposure controls/personal protection**
**Control Parameters:**
**Occupational Exposure Limits**

Chemical name	Type	Exposure Limit Values		Source
Isopropyl alcohol	TWA	200 ppm		US. ACGIH Threshold Limit Values (02 2012)
Isopropyl alcohol	STEL	400 ppm		US. ACGIH Threshold Limit Values (02 2012)
Isopropyl alcohol	REL	400 ppm	980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Isopropyl alcohol	STEL	500 ppm	1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Isopropyl alcohol	PEL	400 ppm	980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Biological Limit Values**

Chemical name	Exposure Limit Values	Source
Isopropyl alcohol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEI (03 2013)

**Appropriate engineering controls:**

Use explosion-proof ventilation equipment to stay below exposure limits. Use material in well ventilated area only. Adequate ventilation should be provided so that exposure limits are not exceeded. Mechanical ventilation or local exhaust ventilation may be required.

**Individual protection measures, such as personal protective equipment****General information:**

Use explosion-proof ventilation equipment. Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. 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.

**Eye/face protection:**

Wear tight-fitting goggles or face shield.

**Skin Protection****Hand Protection:**

Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.

**Other:**

Wear apron or protective clothing in case of contact. Do not wear rings, watches or similar apparel that could entrap the material. Gloves, coveralls, apron, boots as necessary to minimize contact. Do not wear rings, watches or similar apparel that could entrap the material.

**Respiratory Protection:**

Use respirator if irritation is experienced or if the recommended exposure limit is exceeded. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

**Hygiene measures:**

Observe good industrial hygiene practices. Do not get in eyes. Avoid contact with skin. Wash contaminated clothing before reuse. When using do not smoke. Wash hands before breaks and immediately after handling the product.

**9. Physical and chemical properties****Appearance**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Amber
<b>Odor:</b>	Alcohol
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.

Freezing point:	No data available.
Boiling Point:	76.7 °C
Flash Point:	> 15.5 °C (Test method unavailable)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.932 20 °C
<b>Solubility(ies)</b>	
Solubility in water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
<b>Other information</b>	
Bulk density:	7.77 lb/gal 25 °C
Percent Solid:	60 % (Percent by Weight)
Percent volatile:	35 - 45 %(Percent by Weight)

## 10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Heat, sparks, flames. Do not freeze.
Incompatible Materials:	Amines. Aldehydes. Bases. Halogens and halogenated compounds. Strong oxidizing agents. Strong oxidizers
Hazardous Decomposition Products:	Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids. Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide , nitrogen oxides, hydrogen chloride, chlorinated compounds, and other products of incomplete combustion.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation:	No data available.
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**Ingestion:** No data available.

**Skin Contact:** Causes skin irritation.

**Eye contact:** Causes serious eye damage.

**Information on toxicological effects****Acute toxicity****Oral**

**Product:** Swallowing this material can cause burns to the mouth and esophagus. Asphyxiation can occur from swelling of the throat. Perforation of the esophagus and stomach can occur. Swallowing this material causes severe irritation and may cause burns of the mouth, esophagus and stomach, abdominal pain, nausea, vomiting and diarrhea.  
ATEmix 5,000 - 10,000 mg/kg.

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Inhalation**

**Product:** Breathing high vapor concentrations may cause adverse central nervous system effects such as dizziness, light-headedness, headache, drowsiness, nausea and loss of coordination.  
Not classified for acute toxicity based on available data.

**Skin Corrosion/Irritation:**

**Product:** Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.  
Remarks: Causes skin irritation.

**Serious Eye Damage/Eye Irritation:**

**Product:** Remarks: Causes serious eye damage.

**Respiratory sensitization:**

No data available

**Skin sensitization:**

Isopropyl alcohol Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.

**Specific Target Organ Toxicity - Single Exposure:**

2 Alkyl-N-hydroxyl ethyl-N-benzyl-imidazoline chloride May cause irritation to the mucous membranes and upper respiratory tract.

Isopropyl alcohol May cause irritation to the mucous membranes and upper respiratory tract.

Alkyl imidazoline May cause irritation to the mucous membranes and upper respiratory tract.

**Aspiration Hazard:**

No data available

**Other effects:**

Isopropyl alcohol

Central nervous system May cause drowsiness or dizziness.

**Chronic Effects****Carcinogenicity:**

No data available

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity:**

Isopropyl alcohol

In vitro mutagenicity tests have been negative.

**Reproductive toxicity:**

Isopropyl alcohol

Teratogenic effects have been observed in laboratory animals only at maternally toxic doses.

**Specific Target Organ Toxicity - Repeated Exposure:**

No data available

**12. Ecological information****Ecotoxicity****Fish**

No data available

**Aquatic Invertebrates**

No data available

**Toxicity to Aquatic Plants**

No data available

**Toxicity to soil dwelling organisms**

No data available

**Sediment Toxicity**

No data available

**Toxicity to Terrestrial Plants**

No data available

**Toxicity to Above-Ground Organisms**

No data available



**Toxicity to microorganisms**

No data available

**Persistence and Degradability  
Biodegradation**

No data available

**Bioaccumulative Potential  
Bioconcentration Factor (BCF)**

No data available

**Partition Coefficient n-octanol / water (log Kow)**

No data available

**Mobility:**

No data available

**Other Adverse Effects:**

No data available.

**13. Disposal considerations****Disposal instructions:**

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.

**Contaminated Packaging:**

Container packaging may exhibit hazards.

**14. Transport information****TDG**

UN Number:	UN 1219
UN Proper Shipping Name:	ISOPROPANOL SOLUTION(Isopropyl alcohol, Alkyl alcohol)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
Packing Group:	II
Marine Pollutant:	No

**IMDG**

UN Number:	UN 1219
UN Proper Shipping Name:	ISOPROPANOL SOLUTION(Isopropyl alcohol, Alkyl alcohol)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-D
Packing Group:	II
Marine Pollutant:	No
Limited quantity	1.00L
Excepted quantity	E2
Special precautions for user:	None established

**IATA**

UN Number:	UN 1219
Proper Shipping Name:	Isopropanol solution(Isopropyl alcohol, Alkyl alcohol)
Transport Hazard Class(es):	
Class:	3
Label(s):	3
Marine Pollutant:	No
Packing Group:	II
Limited quantity	1.00L
Excepted quantity	E2
Environmental Hazards	Not regulated.
Special precautions for user:	None established
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

None known.

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. For transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

**15. Regulatory information****HMIRA Status**

Not Registered

**Inventory Status****Australia (AICS)**

All components are in compliance with chemical notification requirements in Australia.

**Canada (DSL/NDL)**

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

**China (IECSC)**

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

**European Union (REACH)**

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

**Japan (ENCS)**

May require notification in Japan.

**Korea (ECL)**

May require notification before sale in Korea.

**New Zealand (NZIoC)**

May require notification before sale under New Zealand regulations.

**Philippines (PICCS)**

May require notification before sale under Philippines Republic Act 6969.

**Switzerland (SWISS)**

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

**Taiwan (TCSCA)**

This product requires notification before sale in Taiwan.

**United States (TSCA)**

All substances contained in this product are listed on the TSCA inventory or are exempt.

*The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.*

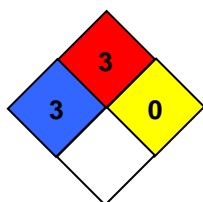
**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	*	3
<b>Flammability</b>		3
<b>Physical Hazards</b>		0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Issue Date:** 02.05.2017

**Version #:** 1.0

**Source of information:** Internal company data and other publically available resources.

**Further Information:** Contact supplier (see Section 1)

**Disclaimer:** As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.