

**Section 1: IDENTIFICATION**

**Product Name:** CQS Retarder

**Synonyms:** Not available.

**Product Use:** Set retarder for cationic quick-set slurry and microsurfacing.

**Restrictions on Use:** Not available.

**Manufacturer/Supplier:** Husky Oil Marketing (Husky Oil Operations Ltd.)  
PO Box 6525 Station 'D'  
Calgary, Alberta T2P 3G7

**Phone Number:** 403-298-6111

**Emergency Phone:** 403-262-2111

**Date of Preparation of SDS:** April 20, 2020

**Section 2: HAZARD(S) IDENTIFICATION****GHS INFORMATION**

**Classification:** Skin Corrosion, Category 1B  
Eye Damage, Category 1  
Sensitization - Skin, Category 1  
Specific Target Organ Toxicity (Single Exposure), Category 3 - Respiratory Irritation  
Specific Target Organ Toxicity (Repeated Exposure), Category 2

**LABEL ELEMENTS****Hazard****Pictogram(s):****Signal Word:** Danger

**Hazard Statements:** Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements**

**Prevention:** Do not breathe mist, vapours, or spray.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection and face protection.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
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 or doctor.  
If skin irritation or rash occurs: Get medical attention.  
Wash contaminated clothing before reuse.

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

**Disposal:** Dispose of contents and container in accordance with applicable regional,  
national and local laws and regulations.

**Hazards Not Otherwise Classified:** Not applicable.

**Ingredients with Unknown Toxicity:** None.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.
Tall oil fatty acid polyamine condensate *	Not available.	Proprietary	15 - 40
Hydrochloric acid	Not available.	7647-01-0	10 - 30

\* See Section 16 for the Canadian HMIRA trade secret registry number.

### Section 4: FIRST-AID MEASURES

**Inhalation:** If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center or doctor if you feel unwell.

**Acute and delayed symptoms and effects:** May cause respiratory irritation.  
Signs/symptoms may include burning pain in the nose and throat,  
coughing, wheezing, shortness of breath and pulmonary edema.  
Hydrogen chloride is extremely destructive to the tissue of the mucous  
membranes and upper respiratory tract.

**Eye Contact:** If in eyes: Rinse cautiously with water for at least 30 minutes. Remove  
contact lenses, if present and easy to do. Continue rinsing. Immediately  
call a poison center or doctor.

**Acute and delayed symptoms and effects:** Causes serious eye damage.  
Signs/symptoms may include cloudy appearance of the cornea, chemical  
burns, severe pain, tearing, ulcerations, significantly impaired vision or  
complete loss of vision.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing.  
Rinse skin with water or shower. Immediately call a poison center or  
doctor. Wash contaminated clothing before reuse.

**Acute and delayed symptoms and effects:** May cause an allergic skin  
reaction. Causes severe skin burns. Signs/symptoms may include  
localized redness, swelling, itching, intense pain, blistering, ulceration, and

tissue destruction.

**Ingestion:** If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.

**Acute and delayed symptoms and effects:** Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. Hydrochloric acid may cause corrosion and permanent tissue destruction of the esophagus and digestive tract.

**General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

**Note to Physicians:** Symptoms may not appear immediately.

#### Section 5: FIRE-FIGHTING MEASURES

##### FLAMMABILITY AND EXPLOSION INFORMATION

Contact with metals may evolve flammable hydrogen gas.

**Sensitivity to Mechanical Impact:** This material is not sensitive to mechanical impact.

**Sensitivity to Static Discharge:** This material is not sensitive to static discharge.

##### MEANS OF EXTINCTION

**Suitable Extinguishing Media:** Small Fire: Dry chemical, CO<sub>2</sub> or water spray.

Large Fire: Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material.

**Unsuitable Extinguishing Media:** Not available.

**Products of Combustion:** Oxides of carbon. Oxides of nitrogen. Chlorine.

**Protection of Firefighters:** Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

**Section 6: ACCIDENTAL RELEASE MEASURES**

<b>Emergency Procedures:</b>	As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate enclosed areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
<b>Personal Precautions:</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8.
<b>Environmental Precautions:</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for Containment:</b>	Stop leak if you can do it without risk.
<b>Methods for Clean-Up:</b>	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
<b>Other Information:</b>	See Section 13 for disposal considerations.

**Section 7: HANDLING AND STORAGE****Handling:**

Do not swallow. Do not breathe mist, vapours, or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for information on Personal Protective Equipment.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines  
Component**

Tall oil fatty acid polyamine condensate [CAS No. Proprietary]

**ACGIH:** No TLV established.

**OSHA:** No PEL established.

Hydrochloric acid [CAS No. 7647-01-0]

**ACGIH:** 2 ppm (C); A4 (2000)

**OSHA:** 5 ppm (C), 7 mg/m<sup>3</sup> (C);

**PEL:** Permissible Exposure Limit

**TLV:** Threshold Limit Value

**C:** Ceiling

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- Eye/Face Protection:** Wear chemical safety goggles, and full face shield. Ensure that eyewash stations and safety showers are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3-92 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.
- Hand Protection:** Wear protective gloves. Consult manufacturer specifications for further information.
- Skin and Body Protection:** Wear protective clothing. Clothing with full length sleeves and pants should be worn.
- Respiratory Protection:** If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-11, with organic vapor/acid gas cartridge and particulate filter, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
- General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Creamy whitish liquid.
<b>Colour:</b>	Whitish.
<b>Odour:</b>	Slightly sweet acidic odour.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	2 to 3
<b>Melting Point / Freezing Point:</b>	~ 0 °C (32 °F)
<b>Initial Boiling Point:</b>	Not available.
<b>Boiling Range:</b>	~ 100 °C (212 °F)
<b>Flash Point:</b>	Not available.



## CQS Retarder

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### SAFETY DATA SHEET

<b>Evaporation Rate:</b>	Not available.
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Relative Density:</b>	1 (Water = 1) at 15.6 °C (60.1 °F)
<b>Solubilities:</b>	Soluble in water.
<b>Partition Coefficient: n-Octanol/Water:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Decomposition Temperature:</b>	Not available.
<b>Viscosity:</b>	11 cP at 25 °C (77 °F)
<b>Percent Volatile, wt. %:</b>	Water: ~68%
<b>VOC content, wt. %:</b>	Not available.
<b>Density:</b>	Not available.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.

### Section 10: STABILITY AND REACTIVITY

<b>Reactivity:</b>	Contact with incompatible materials. Sources of ignition. Exposure to heat.
<b>Chemical Stability:</b>	Stable under normal storage conditions.
<b>Possibility of Hazardous Reactions:</b>	None known.
<b>Conditions to Avoid:</b>	Contact with incompatible materials. Sources of ignition. Exposure to heat. Do not store or transport in aluminum tanks. The product may react with aluminum and produce hydrogen gas.
<b>Incompatible Materials:</b>	Bases. Oxidizers. Aluminum. Metals. Amines.
<b>Hazardous Decomposition Products:</b>	Chlorine. Hydrogen.

### Section 11: TOXICOLOGICAL INFORMATION

#### EFFECTS OF ACUTE EXPOSURE

##### Product Toxicity

<b>Oral:</b>	Not available.
<b>Dermal:</b>	Not available.
<b>Inhalation:</b>	Not available.

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**SAFETY DATA SHEET****Component Toxicity**

<b>Component</b>	<b>CAS No.</b>	<b>LD<sub>50</sub> oral</b>	<b>LD<sub>50</sub> dermal</b>	<b>LC<sub>50</sub></b>
Tall oil fatty acid polyamine condensate	Proprietary	2200 mg/kg (rat)	Not available.	Not available.
Hydrochloric acid	7647-01-0	900 mg/kg (rabbit)	Not available.	1108 ppm (mouse); 1H

**Likely Routes of Exposure:** Eye contact. Skin contact. Inhalation. Ingestion.**Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Teeth.**Symptoms (including delayed and immediate effects)****Inhalation:** May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Hydrogen chloride is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.**Eye:** Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.**Skin:** May cause an allergic skin reaction. Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.**Ingestion:** Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. Hydrochloric acid may cause corrosion and permanent tissue destruction of the esophagus and digestive tract.**Skin Sensitization:** Not available.**Respiratory Sensitization:** Not available.**Medical Conditions Aggravated By Exposure:** Not available.**EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)****Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Teeth.**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation. Prolonged exposure to Hydrochloric acid may cause conjunctivitis, photosensitization, and possible blindness, and may have effects on the lungs, resulting in chronic bronchitis.**Carcinogenicity:** Product is not classified as a carcinogen. See Component Carcinogenicity table below for information on individual components.**Component Carcinogenicity**

<b>Component</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>	<b>Prop 65</b>
Hydrochloric acid	A4	Group 3	Not listed.	Not listed.	Not listed.

**Mutagenicity:** Not available.

**Reproductive Effects:** Not available.**Developmental Effects****Teratogenicity:** Not available.**Embryotoxicity:** Not available.**Toxicologically Synergistic Materials:** Not available.**Section 12: ECOLOGICAL INFORMATION****Ecotoxicity:** Not available.**Persistence / Degradability:** Not available.**Bioaccumulation / Accumulation:** Not available.**Mobility in Environment:** Not available.**Other Adverse Effects:** Not available.**Section 13: DISPOSAL CONSIDERATIONS****Disposal Instructions:** 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****U.S. Department of Transportation (DOT)****Proper Shipping Name:** UN1760, CORROSIVE LIQUIDS, N.O.S. (Hydrochloric acid), 8, PG III**Class:** 8**UN Number:** UN1760**Packing Group:** III**Label Code:****Canada Transportation of Dangerous Goods (TDG)****Proper Shipping Name:** UN1760, CORROSIVE LIQUIDS, N.O.S. (Hydrochloric acid), 8, PG III**Class:** 8**UN Number:** UN1760**Packing Group:** III**Label Code:**



**Section 15: REGULATORY INFORMATION****Chemical Inventories****US (TSCA)**

The components of this product are in compliance with the chemical notification requirements of TSCA.

**Canada (DSL)**

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

**Federal Regulations****United States**

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Section 16: OTHER INFORMATION****Other information:**

\* The claim for trade secret exemption has been filed in Canada under HMIRA # 03331166, June 29, 2019.

**Disclaimer:**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

**Date of Preparation of SDS:** April 20, 2020

**Version:** 2.1

**GHS SDS Prepared by:** Deerfoot Consulting Inc.

**Phone: (403) 720-3700**