# MATERIAL SAFETY DATA SHEET

**Product name:** QUAKERAL 372  
**Product code:** 014894-01

## 1. COMPANY AND PRODUCT IDENTIFICATION

**Supplier:** Quaker Chemical Corporation  
Quaker Park One  
901 Hector Street  
Conshohocken, PA 19428  
610-832-4000  
E-mail: she@quakerchem.com

**Emergency telephone number:**  
* 24 HOUR TRANSPORTATION:  
**CHEMTREC: 1-800-424-9300  
703-527-3887 (Call collect outside of US)  
* 24 HOUR EMERGENCY HEALTH & SAFETY:  
**QUAKER CHEMICAL CORPORATION: (800) 523-7010(Within US only)  
Outside of US call (703) 527-3887

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### HAZARDOUS COMPONENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Weight %</th>
<th>OSHA Ceiling Limits</th>
<th>OSHA TWA (final)</th>
<th>ACGIH Ceiling Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Vendor Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>8012-95-1</td>
<td>30 - 40%</td>
<td>5mg/m³</td>
<td>5mg/m³</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,2',2&quot;-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>4719-04-4</td>
<td>1 - 5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C10-C12, ethoxylated, propoxylated</td>
<td>68154-97-2</td>
<td>1 - 5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>78330-12-8</td>
<td>1 - 5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* May include one or more of the following CAS #: 64741-88-4, 64741-89-5, 64741-44-2, 64741-96-4, 64741-97-5, 64742-46-7, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-62-7, 64742-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 69029-75-0 and 64741-95-3

## 3. HAZARDS IDENTIFICATION

**Emergency Overview**  
Irritating to eyes.  
May cause skin irritation and/or dermatitis.  
May cause sensitization by skin contact.  
May cause irritation of respiratory tract.  
May be harmful if swallowed.

**Signal word:** CAUTION
Principle routes of exposure: Eyes, skin and inhalation.

Eye contact: Irritating to eyes.

Skin contact: Repeated or prolonged contact with base product may cause irritation leading to various skin disorders such as dermatitis, oil acne, or folliculitis. May cause sensitization by skin contact.

Inhalation: Inhalation of vapor (generated at high temperatures only) or oil mist from this product may cause mild irritation of the upper respiratory tract.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Physico-chemical properties: No hazards resulting from material as supplied.

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### 4. FIRST AID MEASURES

**General advice:** Take off all contaminated clothing immediately. Wash off with soap and water. If symptoms persist, call a physician.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

**Skin contact:** Remove and wash contaminated clothing before re-use. Rinse immediately with plenty of water for at least 15 minutes. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

**Note to physician:** Treat symptomatically.

**Medical condition aggravated by exposure:** Dermatitis.

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### 5. FIRE-FIGHTING MEASURES

**Flash Point (°C):** None to boiling  
**Flash Point (°F):** None to boiling  
**Flash Point Method:** COC

**Flammable limits in air - lower (%):** Not determined  
**Flammable limits in air - upper (%):** Not determined

**Suitable extinguishing media:** Use dry chemical, CO2, water spray or ‘alcohol’ foam.

**Unusual hazards:** None known

**Special protective equipment for fire-fighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods:** Water mist may be used to cool closed containers.

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### 6. ACCIDENTAL RELEASE MEASURES

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SDS code: 014894-01  
Product name: QUAKERAL  372
6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapour/dust.

Environmental precautions: Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling

Technical measures/precautions: Provide sufficient air exchange and/or exhaust in work rooms.

Safe handling advice: Do not breathe vapors or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly after handling.

Storage

Technical measures/storage conditions: Store at room temperature in the original container

Incompatible products: strong oxidizing agents

Safe storage temperature: 40-100 °F

Shelf life: 4 months

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA Ceiling Limits</th>
<th>OSHA TWA (final)</th>
<th>ACGIH Ceiling Limits</th>
<th>ACGIH Exposure Limits</th>
<th>NIOSH - Pocket Guide</th>
<th>Vendor Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>None</td>
<td>5mg/m³</td>
<td>None</td>
<td>5 mg/m³</td>
<td>5mg/m³</td>
<td>None</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Alcohols, C10-C12, ethoxylated, propoxylated</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering measures: Ensure adequate ventilation.

Personal Protective Equipment

General: Eye Wash and Safety Shower

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH/MSHA certified respirator with organic vapor/P100 filter should be worn.

Hand protection: Neoprene gloves
9. PHYSICAL AND CHEMICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear Amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight, Amine-like</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility</td>
<td>Emulsifiable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>9.90</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>None to boiling</td>
</tr>
<tr>
<td>Flash Point (°F)</td>
<td>None to boiling</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density @ 15.5 ° C (g/cc)</td>
<td>0.972</td>
</tr>
<tr>
<td>Bulk density @ 60 ° F (lb/gal)</td>
<td>8.11</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water, log Pow)</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Explosive properties:
- upper limit: No data available
- lower limit: No data available

10. STABILITY AND REACTIVITY

Stability:
Stable under recommended storage conditions.

Conditions to avoid:
None known

Materials to avoid:
Strong oxidizing agents

Hazardous decomposition products:

Polymerisation
Not applicable

11. TOXICOLOGICAL INFORMATION

MINERAL OIL INFORMATION: Any product containing a substance for which OSHA has established a permissible exposure limit (PEL) is considered hazardous. OSHA has established a PEL of 5 mg/m³ for worker exposure to air borne mists of mineral oils. Therefore, the presence of mineral oils brings this product within the provisions of the OSHA Hazard Communication Standard where the PEL reaches or exceeds 5 mg/m³. Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.
No toxicological information is available on the product. Data obtained on components are summarized below.

<table>
<thead>
<tr>
<th>Components</th>
<th>NTP:</th>
<th>IARC Carcinogens</th>
<th>OSHA - Select Carcinogens</th>
<th>Acute Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>Not listed as known or reasonably anticipated to be a human carcinogen</td>
<td>Not listed as carcinogenic or possibly carcinogenic to humans</td>
<td>Not listed as a select carcinogen</td>
<td>Mouse Oral LD50 = 22 g/kg</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>Not listed as known or reasonably anticipated to be a human carcinogen</td>
<td>Not listed as carcinogenic or possibly carcinogenic to humans</td>
<td>Not listed as a select carcinogen</td>
<td>Rat Oral LD50 = 763 mg/kg Rat Dermal LD50 &gt; 2 g/kg</td>
</tr>
<tr>
<td>Alcohols, C10-C12, ethoxylated, propoxylated</td>
<td>Not listed as known or reasonably anticipated to be a human carcinogen</td>
<td>Not listed as carcinogenic or possibly carcinogenic to humans</td>
<td>Not listed as a select carcinogen</td>
<td>No data</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>Not listed as known or reasonably anticipated to be a human carcinogen</td>
<td>Not listed as carcinogenic or possibly carcinogenic to humans</td>
<td>Not listed as a select carcinogen</td>
<td>No data</td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

**Persistence and degradability:** No information available

**Mobility:** No data available

**Bioaccumulation:** No data available

**Ecotoxicity effects:** No data available

**Aquatic toxicity:** Not Determined

#### Component Information

<table>
<thead>
<tr>
<th>Components</th>
<th>Ecotoxicity - Fish Species Data:</th>
<th>Ecotoxicity - Freshwater Algae Data:</th>
<th>Ecotoxicity - Water Flea Data:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>LC50 (Brachydanio rerio - 96h) = 10 - 100 mg/l</td>
<td>No data</td>
<td>EC50 (Daphnia magna - 48h) = 10 - 100 mg/l</td>
</tr>
<tr>
<td>Alcohols, C10-C12, ethoxylated, propoxylated</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues/unused products:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

**Contaminated packaging:** Do not re-use empty containers

**Methods for cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.
14. TRANSPORT INFORMATION

U. S. DEPARTMENT OF TRANSPORTATION:
Proper shipping name: Not Regulated

TDG (CANADA):
Proper shipping name: Not Regulated

IMDG/IMO:
Proper shipping name: Not Regulated

IATA/ICAO:
Proper shipping name: Not Regulated

15. REGULATORY INFORMATION

CANADIAN REGULATIONS:

Canada - WHMIS Classification Information:
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Canadian Product Classification: Class D2B

Component Classification Data:

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS hazard class</th>
<th>CEPA Schedule I</th>
<th>Challenge Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>1 % Uncontrolled product according to WHMIS classification criteria.</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>2,2&quot;,2&quot;-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>None</td>
<td>Not listed</td>
<td>Not listed</td>
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<tr>
<td>Alcohols, C10-C12, ethoxylated, propoxylated</td>
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<td>Not listed</td>
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<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>None</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

U.S. FEDERAL REGULATIONS:

OSHA Hazard Communication Standard:
This product is considered to be hazardous under the OSHA Hazard Communication Standard.

CERCLA/SARA Information:

SARA (311, 312) hazard class:
Immediate Health (Acute): Yes
Delayed Health (Chronic): No
Flammability: No
<table>
<thead>
<tr>
<th>Components</th>
<th>Hazardous Substances and RQs</th>
<th>Extremely Hazardous Substances and TPQs</th>
<th>SARA 313 Emission Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>Not listed</td>
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<td>Not listed</td>
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<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

**Clean Air and Clean Water Acts:**

<table>
<thead>
<tr>
<th>Components</th>
<th>Hazardous Air Pollutants</th>
<th>CWA - Hazardous Substances</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>Not listed</td>
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<td>Not listed</td>
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<td>Alcohols,C10-C12, ethoxylated, propoxylated</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

**RCRA Status:** Not regulated

**U.S. STATE REGULATIONS (RTK):**

<table>
<thead>
<tr>
<th>Components</th>
<th>California Proposition 65</th>
<th>PARTK</th>
<th>MI Critical Materials</th>
<th>NJRTK</th>
<th>MARTK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil*</td>
<td>Not Listed</td>
<td>Present</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Present</td>
</tr>
<tr>
<td>2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Alcohols,C10-C12, ethoxylated, propoxylated</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Benzene sulfonic acid alkyl deriv. sodium salts</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**California Proposition 65 Status:** May contain trace amounts of listed chemicals: dioxane, ethylene oxide, N-methyl-N-nitroso-methanamine

**INVENTORY STATUS:**

United States TSCA - Sect. 8(b) Inventory: This product complies with TSCA

Canada DSL/NDSL Inventory List: All components are either on the DSL or the NDSL

**16. OTHER INFORMATION**

Sources of key data used to compile the data sheet: Material safety data sheets of the ingredients.

Prepared by: Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US
Reason for revision: New formulation

HMIS classification: HMIS Use Dilution NFPA rating:

Health: Health Health: 2
2 --

Flammability: Flammability Flammability: 0
0 --

Reactivity: Reactivity Reactivity: 0
0 --

Personal Protection: Personal Protection Special: NA
C --

* Indicates possible chronic health effect

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

Disclaimer
This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. Quaker Chemical Corporation ("Quaker") assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of Quaker.

End of Safety Data Sheet