

Revision date 28-Aug-2023

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Chiller Fluid

### Other means of identification

**Product Code(s)** 1379

**UN number or ID number** UN1993

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Recommended use** Industrial use  
Laboratory use  
Industrial Manufacturing (all)

**Restrictions on use** No information available

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

#### Supplier Address

Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI 53925 USA  
Phone: (920) 623-2140  
Fax: (920) 623-2577  
www.columbuschemical.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC: 1-800-424-9300 for US / 703-527-3887 outside US

**Emergency Telephone** 911

## 2. Hazard(s) identification

### Classification

|  |            |
|--|------------|
| Acute toxicity - Oral                            | Category 3 |
| Acute toxicity - Dermal                          | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists)        | Category 4 |
| Specific target organ toxicity (single exposure) | Category 1 |
| Flammable liquids                                | Category 3 |

### Hazards not otherwise classified (HNOC)

Not applicable

**Label elements****Danger****Hazard statements**

H301 - Toxic if swallowed

H312 - Harmful in contact with skin

H332 - Harmful if inhaled

H370 - Causes damage to organs

H226 - Flammable liquid and vapor.

**Precautionary Statements - Prevention**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

P321 - Specific treatment (see First-Aid Measures on SDS)

P307 + P311 - IF exposed: Call a POISON CENTER or doctor

P312 - Call a POISON CENTER or doctor if you feel unwell

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

P363 - Wash contaminated clothing before reuse

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P330 - Rinse mouth

P370 + P378 - In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish**Precautionary Statements - Storage**

P405 - Store locked up

P403 + P235 - Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**

May be harmful if inhaled.

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

| Chemical name   | CAS No    | Weight-% | Formula                                      | Molecular Weight |
|-----------------|-----------|----------|--|------------------|
| Water           | 7732-18-5 | 36-37    | H <sub>2</sub> O                             | 18.00 g/mol      |
| Ethylene glycol | 107-21-1  | 36-37    | C <sub>2</sub> H <sub>6</sub> O <sub>2</sub> | 62.07 g/mol      |
| Methanol        | 67-56-1   | 27-28    | CH <sub>3</sub> OH                           | 32.04 g/mol      |

**4. First-aid measures****Description of first aid measures**

|   |  |
|---|--|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance.   |
| <b>Inhalation</b>                         | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.   |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.  |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.   |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.   |
| <b>Self-protection of the first aider</b> | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid breathing vapors or mists. |

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

**Symptoms** Coughing and/ or wheezing. Difficulty in breathing.

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

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b><br><b>Large Fire</b>              | Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.<br>CAUTION: Use of water spray when fighting fire may be inefficient.   |
| <b>Unsuitable extinguishing media</b>                                 | Do not scatter spilled material with high pressure water streams.   |
| <b>Specific hazards arising from the chemical</b>                     | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| <b>Explosion data</b>   |   |
| <b>Sensitivity to mechanical impact</b>                               | None.   |
| <b>Sensitivity to static discharge</b>                                | Yes.  |
| <b>Special protective equipment and precautions for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.  |

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid breathing vapors or mists.

#### Other information

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

#### Methods for containment

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

#### Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

| Chemical name   | ACGIH TLV                   | OSHA PEL                  | NIOSH |
|-----------------|-----------------------------|---------------------------|-------|
| Ethylene glycol | STEL: 50 ppm vapor fraction | (vacated) Ceiling: 50 ppm | -     |

|          |   |  |  |
|----------|---|--|--|
|          | STEL: 10 mg/m <sup>3</sup> inhalable particulate matter, aerosol only<br>TWA: 25 ppm vapor fraction | (vacated) Ceiling: 125 mg/m <sup>3</sup>   |  |
| Methanol | STEL: 250 ppm<br>TWA: 200 ppm<br>S*   | TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>(vacated) TWA: 200 ppm<br>(vacated) TWA: 260 mg/m <sup>3</sup><br>(vacated) STEL: 250 ppm<br>(vacated) STEL: 325 mg/m <sup>3</sup><br>(vacated) S* | IDLH: 6000 ppm<br>TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>STEL: 250 ppm<br>STEL: 325 mg/m <sup>3</sup> |

**Biological occupational exposure limits**

| Chemical name | ACGIH                                     |
|---------------|---|
| Methanol      | 15 mg/L - urine (Methanol) - end of shift |

**Appropriate engineering controls**

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Tight sealing safety goggles.

**Hand protection**                              Wear suitable gloves. Impervious gloves.

**Skin and body protection**                      Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.  
 Antistatic boots.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

**Physical state**                                      Liquid  
**Appearance**                                      Clear  
**Color**    Colorless  
**Odor**    Slight sweet Typical alcohol odor  
**Odor threshold**                                      No information available

| <b><u>Property</u></b>                         | <b><u>Values</u></b> | <b><u>Remarks • Method</u></b> |
|--|----------------------|--------------------------------|
| <b>pH</b>                                      | No data available    | No data available              |
| <b>pH (as aqueous solution)</b>                | No data available    | No data available              |
| <b>Melting point / freezing point</b>          | No data available    | No data available              |
| <b>Initial boiling point and boiling range</b> | No data available    | No data available              |
| <b>Flash point</b>                             | No data available    | No data available              |
| <b>Evaporation rate</b>                        | No data available    | No data available              |

|   |                          |                   |
|---|--------------------------|-------------------|
| <b>Flammability</b>                           | No data available        | No data available |
| <b>Flammability Limit in Air</b>              |                          |                   |
| <b>Upper flammability or explosive limits</b> | No data available        | No data available |
| <b>Lower flammability or explosive limits</b> | No data available        | No data available |
| <b>Vapor pressure</b>                         | No data available        | No data available |
| <b>Relative vapor density</b>                 | No data available        | No data available |
| <b>Relative density</b>                       | 1.01 - 1.02              |                   |
| <b>Water solubility</b>                       | Soluble in water         |                   |
| <b>Solubility(ies)</b>                        | No data available        | No data available |
| <b>Partition coefficient</b>                  | No data available        | No data available |
| <b>Autoignition temperature</b>               | No data available        | No data available |
| <b>Decomposition temperature</b>              |                          |                   |
| <b>Kinematic viscosity</b>                    | No data available        | No data available |
| <b>Dynamic viscosity</b>                      | No data available        | No data available |
| <b><u>Other information</u></b>               |                          |                   |
| <b>Explosive properties</b>                   | No information available |                   |
| <b>Oxidizing properties</b>                   | No information available |                   |
| <b>Softening point</b>                        | No information available |                   |
| <b>Molecular weight</b>                       |                          |                   |
| <b>VOC content</b>                            | No information available |                   |
| <b>Liquid Density</b>                         | No information available |                   |
| <b>Bulk density</b>                           | No information available |                   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | No information available.                 |
| <b>Chemical stability</b>                 | Stable under normal conditions.           |
| <b>Possibility of hazardous reactions</b> | None under normal processing.             |
| <b>Conditions to avoid</b>                | Heat, flames and sparks. Excessive heat.  |
| <b>Incompatible materials</b>             | None known based on information supplied. |
| <b>Hazardous decomposition products</b>   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components). May be harmful if inhaled. |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available.  |
| <b>Skin contact</b> | May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).                                  |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).                               |

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Coughing and/ or wheezing.

**Acute toxicity**

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

|                               |                |
|-------------------------------|----------------|
| ATEmix (oral)                 | 282.50 mg/kg   |
| ATEmix (dermal)               | 1,032.80 mg/kg |
| ATEmix (inhalation-gas)       | 99,999.00 ppm  |
| ATEmix (inhalation-vapor)     | 93.8196 mg/l   |
| ATEmix (inhalation-dust/mist) | 1.521 mg/l     |

**Component Information**

| Chemical name   | Oral LD50            | Dermal LD50              | Inhalation LC50         |
|-----------------|----------------------|--------------------------|-------------------------|
| Water           | >90 mL/kg (Rat)      | -                        | -                       |
| Ethylene glycol | = 4700 mg/kg ( Rat ) | = 10600 mg/kg ( Rat )    | = 2.5 mg/L (Rat) 6h     |
| Methanol        | = 6200 mg/kg ( Rat ) | = 15840 mg/kg ( Rabbit ) | = 22500 ppm ( Rat ) 8 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

**STOT - repeated exposure** No information available.

**Target organ effects** Respiratory system, Eyes, Skin, Central nervous system, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

### Ecotoxicity

| Chemical name   | Algae/aquatic plants   | Fish   | Toxicity to microorganisms   | Crustacea                              |
|-----------------|--|--|--|--|
| Ethylene glycol | 96h EC50: 6500 - 13000 mg/L<br>(Pseudokirchneriella subcapitata) | 96h LC50: 14 - 18 mL/L (Oncorhynchus mykiss)<br>96h LC50: 40000 - 60000 mg/L (Pimephales promelas) 96h LC50: = 16000 mg/L (Poecilia reticulata) 96h LC50: = 27540 mg/L (Lepomis macrochirus) 96h LC50: = 40761 mg/L (Oncorhynchus mykiss) 96h LC50: = 41000 mg/L (Oncorhynchus mykiss) | EC50 = 10000 mg/L 16 h<br>EC50 = 620 mg/L 30 min<br>EC50 = 620.0 mg/L 30 min | 48h EC50: = 46300 mg/L (Daphnia magna) |
| Methanol        | -  | LC50: =28200mg/L (96h, Pimephales promelas)<br>LC50: >100mg/L (96h, Pimephales promelas)<br>LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss)<br>LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss)<br>LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)                                   | -  | -                                      |

**Persistence and degradability** No information available.

### Bioaccumulation

#### Component Information

| Chemical name   | Partition coefficient |
|-----------------|-----------------------|
| Ethylene glycol | -1.93                 |
| Methanol        | -0.77                 |

**Other adverse effects** No information available.

## 13. Disposal considerations

### Disposal methods

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.



**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. Transport information

**DOT** Regulated  
**UN number or ID number** UN1993  
**Proper shipping name** Flammable liquids, n.o.s. (Methanol)  
**Transport hazard class(es)** 3  
**Packing group** III  
**DOT Marine Pollutant** No

**TDG** Regulated  
**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Methanol)  
**Transport hazard class(es)** 3  
**Packing group** III

**ICAO (air)** Regulated  
**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Methanol)  
**Transport hazard class(es)** 3  
**Packing group** III

**IATA** Regulated  
**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Methanol)  
**Transport hazard class(es)** 3  
**Packing group** III

**IMDG** Regulated  
**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Methanol)  
**Transport hazard class(es)** 3  
**Packing group** III

## 15. Regulatory information

### International Inventories

**TSCA** Complies.  
**DSL/NDSL** Complies.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical name               | SARA 313 - Threshold Values % |
|-----------------------------|-------------------------------|
| Ethylene glycol<br>107-21-1 | 1.0                           |
| Methanol<br>67-56-1         | 1.0                           |

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Chemical name   | Hazardous Substances RQs | Extremely Hazardous Substances RQs | Reportable Quantity (RQ)                   |
|-----------------|--------------------------|------------------------------------|--|
| Ethylene glycol | 5000 lb                  | Not Applicable                     | RQ 5000 lb final RQ(RQ 2270 kg final RQ)   |
| Methanol        | 5000 lb                  | -                                  | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

### US State Regulations

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals:.

| Chemical name               | California Proposition 65 |
|-----------------------------|---------------------------|
| Ethylene glycol<br>107-21-1 | Developmental             |
| Methanol<br>67-56-1         | Developmental             |

### U.S. State Right-to-Know Regulations

| Chemical name   | New Jersey | Massachusetts | Pennsylvania |
|-----------------|------------|---------------|--------------|
| Ethylene glycol | X          | X             | X            |
| Water           | -          | -             | X            |
| Methanol        | X          | X             | X            |

### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

