

# Safety Data Sheet

## Zerex G-05

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Zerex G-05

**Synonyms/Generic Names:** None

**Product Number:** 7016

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Hazard Not Otherwise Classified (HNOC):** None

**Signal Words:** Warning

**Pictograms:**



**GHS Classification:**

|                      |             |
|----------------------|-------------|
| Acute toxicity, Oral | Category 4  |
| Eye irritation       | Category 2B |

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

|      |                        |
|------|------------------------|
| H302 | Harmful if swallowed.  |
| H320 | Causes eye irritation. |

**Precautionary Statements:**

|                |  |
|----------------|--|
| P264           | Wash hands thoroughly after handling.  |
| P270           | Do not eat, drink or smoke when using this product.  |
| P301+P312      | IF SWALLOWED: Call a poison center/doctor/physician if you feel unwell.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P330           | Rinse mouth.   |

P337+P313

If eye irritation persists: Get medical advice/attention.

**Potential Health Effects**

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Causes eye irritation with symptoms including stinging, tears, redness and swelling of eyes.   |
| <b>Inhalation</b> | Causes respiratory tract irritation if inhaled.  |
| <b>Skin</b>       | Causes skin irritation with symptoms including redness, burning of skin and other skin damage. |
| <b>Ingestion</b>  | May be harmful if swallowed.   |

**NFPA Ratings**

|                        |               |
|------------------------|---------------|
| <b>Health</b>          | 1             |
| <b>Flammability</b>    | 1             |
| <b>Reactivity</b>      | 0             |
| <b>Specific hazard</b> | Not Available |

**HMIS Ratings**

|                   |   |
|-------------------|---|
| <b>Health</b>     | 2 |
| <b>Fire</b>       | 1 |
| <b>Reactivity</b> | 0 |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component          | Weight % | CAS #     | EINECS# / ELINCS# | Formula   | Molecular Weight |
|--------------------|----------|-----------|-------------------|---|------------------|
| Ethylene Glycol    | 90-100   | 107-21-1  | 203-473-3         | C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>    | 62.07 g/mol      |
| Diethylene Glycol  | 1.5-5    | 111-46-6  | 203-872-2         | C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>   | 106.12 g/mol     |
| Sodium Benzoate    | 1.5-5    | 532-32-1  | 208-534-8         | C <sub>7</sub> H <sub>5</sub> O <sub>2</sub> Na | 144.10 g/mol     |
| Sodium Tetraborate | 1.5-5    | 1330-43-4 | 215-540-4         | B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub>   | 201.22 g/mol     |

**4. FIRST-AID MEASURES**

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.   |
| <b>Inhalation</b> | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary. |
| <b>Skin</b>       | Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.                        |
| <b>Ingestion</b>  | <b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.      |

**5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| <b>Suitable (and unsuitable) extinguishing media</b>                 | Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.                      |
| <b>Special protective equipment and precautions for firefighters</b> | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| <b>Specific hazards arising from the chemical</b>                    | May emit toxic fumes under fire conditions. (See also Stability and Reactivity section).                            |

## 6. ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | See section 8 for recommendations on the use of personal protective equipment.  |
| <b>Environmental precautions</b>   | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.   |
| <b>Methods and materials for containment and cleaning up</b>               | Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

## 7. HANDLING AND STORAGE

### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational exposure controls:

| Component         | Exposure Limits                 | Basis | Entity    |
|-------------------|---------------------------------|-------|-----------|
| Ethylene Glycol   | 100 mg/m <sup>3</sup>           | STEL  | ACGIH     |
|                   | 50 ppm<br>125 mg/m <sup>3</sup> | STEL  | OSHA      |
| Diethylene Glycol | 10 mg/m <sup>3</sup>            | TWA   | AIHA WEEL |
| Sodium Borate     | 1 mg/m <sup>3</sup>             | REL   | NIOSH     |
|                   | 10 mg/m <sup>3</sup>            | TWA   | OSHA      |
|                   | 2 mg/m <sup>3</sup>             | TWA   | ACGIH     |
|                   | 6 mg/m <sup>3</sup>             | STEL  | ACGIH     |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Wear chemical safety glasses or goggles.  |
| <b>Inhalation</b> | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| <b>Skin</b>       | Wear nitrile or rubber gloves, and apron or lab coat.   |
| <b>Other</b>      | Not Available   |

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |                      |
|---|----------------------|
| Appearance (physical state, color, etc.)    | Light yellow liquid. |
| Odor  | Mild                 |
| Odor threshold                              | Not Available        |
| pH  | 6.5                  |
| Melting point/freezing point                | Not Available        |
| Initial boiling point and boiling range     | 166 ° C (300 °F)     |
| Flash point                                 | Not Flammable        |
| Evaporation rate                            | Not Available        |
| Flammability (solid, gas)                   | Not Flammable        |
| Upper/lower flammability or explosive limit | Not Explosive        |
| Vapor pressure                              | Not Available        |
| Vapor density                               | Not Available        |
| Density                                     | 1.1362               |
| Solubility (ies)                            | Not Available        |
| Partition coefficient: n-octanol/water      | Not Available        |
| Auto-ignition temperature                   | Not Available        |
| Decomposition temperature                   | Not Available        |

## 10. STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Chemical Stability</b>                 | Stable   |
| <b>Possibility of Hazardous Reactions</b> | Will not occur.  |
| <b>Conditions to Avoid</b>                | Acids, aldehydes, alkali metals, alkaline earth metals, bases, iron salts, strong alkalis, Strong oxidizing agents, Sulfur compounds |
| <b>Incompatible Materials</b>             | Strong oxidizing agents  |
| <b>Hazardous Decomposition Products</b>   | Carbon dioxide and carbon monoxide, aldehydes, ketones, organic acids, alcohols, ethers, hydrocarbons, sodium oxides.                |

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### *Ethylene Glycol*

|                    |                                    |
|--------------------|------------------------------------|
| <b>Skin</b>        | LD50 Dermal - rabbit – 9,530 mg/kg |
| <b>Eyes</b>        | Not Available                      |
| <b>Respiratory</b> | Not Available                      |
| <b>Ingestion</b>   | LD50 Oral - rat – 6,140 mg/kg      |

#### *Diethylene Glycol*

|                    |   |
|--------------------|---|
| <b>Skin</b>        | LD50 Dermal - rabbit – 11,890 mg/kg                   |
| <b>Eyes</b>        | Not Available   |
| <b>Respiratory</b> | LCLo Inhalation – mouse – 130 mg/m <sup>3</sup> – 2 h |
| <b>Ingestion</b>   | LD50 Oral - rat – 12,565 mg/kg                        |

#### *Sodium Benzoate*

|                    |                               |
|--------------------|-------------------------------|
| <b>Skin</b>        | Not Available                 |
| <b>Eyes</b>        | Not Available                 |
| <b>Respiratory</b> | Not Available                 |
| <b>Ingestion</b>   | LD50 Oral - rat – 4,070 mg/kg |

#### *Sodium Tetraborate*

|                    |  |
|--------------------|--|
| <b>Skin</b>        | LD50 Dermal - rabbit – >1,055 mg/kg                |
| <b>Eyes</b>        | Not Available                                      |
| <b>Respiratory</b> | LC50 Inhalation – rat – >2 mg/m <sup>3</sup> – 4 h |

|                  |                               |
|------------------|-------------------------------|
| <b>Ingestion</b> | LD50 Oral - rat – 1,200 mg/kg |
|------------------|-------------------------------|

**Carcinogenicity**

|              |  |
|--------------|--|
| <b>IARC</b>  | No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| <b>ACGIH</b> | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.            |
| <b>NTP</b>   | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |
| <b>OSHA</b>  | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.             |

**Signs & Symptoms of Exposure**

|                    |   |
|--------------------|---|
| <b>Skin</b>        | Irritation, redness.                    |
| <b>Eyes</b>        | Irritation, redness, watering eyes.     |
| <b>Respiratory</b> | Irritation, coughing.                   |
| <b>Ingestion</b>   | Irritation, nausea, vomiting, diarrhea. |

|                                       |  |
|---------------------------------------|--|
| <b>Chronic Toxicity</b>               | Not Available  |
| <b>Teratogenicity</b>                 | Not Available  |
| <b>Mutagenicity</b>                   | Not Available  |
| <b>Embryotoxicity</b>                 | Not Available  |
| <b>Target Organ(s)</b>                | Liver, Cardiovascular system, Eyes, Kidney, Central nervous system |
| <b>Reproductive Toxicity</b>          | Not Available  |
| <b>Respiratory/Skin Sensitization</b> | Not Available  |

**12. ECOLOGICAL INFORMATION****Ecotoxicity***Ethylene Glycol*

|                             |  |
|-----------------------------|--|
| <b>Aquatic Vertebrate</b>   | LC50 - Oncorhynchus mykiss (rainbow trout) - 18,500 mg/l - 96 h<br>LC50 - Leuciscus idus (Golden orfe) - > 10,000 mg/l - 48 h<br>NOEC - Pimephales promelas (fathead minnow) - 32,000 mg/l - 7 d<br>NOEC - Pimephales promelas (fathead minnow) - 39,140 mg/l - 96 h |
| <b>Aquatic Invertebrate</b> | EC50 - Daphnia magna (Water flea) - 74,000 mg/l - 24 h<br>NOEC - Daphnia - 24,000 mg/l - 48 h<br>LC50 - Daphnia magna (Water flea) - 41,000 mg/l - 48 h  |
| <b>Terrestrial</b>          | Not Available  |

*Diethylene Glycol*

|                             |   |
|-----------------------------|---|
| <b>Aquatic Vertebrate</b>   | LC50 - Pimephales promelas (fathead minnow) - 75,200 mg/l - 96 h<br>LC50 - Carassius auratus (goldfish) - 5,000 mg/l - 24 h |
| <b>Aquatic Invertebrate</b> | EC50 - Daphnia magna (Water flea) - > 10,000 mg/l - 24 h  |
| <b>Terrestrial</b>          | Not Available   |

*Sodium Benzoate*

|                             |   |
|-----------------------------|---|
| <b>Aquatic Vertebrate</b>   | LC50 - Pimephales promelas (fathead minnow) - 484 mg/l - 96 h |
| <b>Aquatic Invertebrate</b> | Not Available   |
| <b>Terrestrial</b>          | Not Available   |

*Sodium Tetraborate*

|                             |               |
|-----------------------------|---------------|
| <b>Aquatic Vertebrate</b>   | Not Available |
| <b>Aquatic Invertebrate</b> | Not Available |
| <b>Terrestrial</b>          | Not Available |

|                                      |               |
|--------------------------------------|---------------|
| <b>Persistence and Degradability</b> | Not Available |
| <b>Bioaccumulative Potential</b>     | Not Available |
| <b>Mobility in Soil</b>              | Not Available |
| <b>PBT and vPvB Assessment</b>       | Not Available |

|                              |               |
|------------------------------|---------------|
| <b>Other Adverse Effects</b> | Not Available |
|------------------------------|---------------|

### 13. DISPOSAL CONSIDERATIONS

|                           |  |
|---------------------------|--|
| <b>Waste Residues</b>     | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues. |
| <b>Product Containers</b> | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.   |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

### 14. TRANSPORTATION INFORMATION

|                  |                     |
|------------------|---------------------|
| US DOT           | Not Dangerous Goods |
| TDG              | Not Dangerous Goods |
| IMDG             | Not Dangerous Goods |
| Marine Pollutant | No                  |
| IATA/ICAO        | Not Dangerous Goods |

### 15. REGULATORY INFORMATION

|   |  |
|---|--|
| TSCA Inventory Status   | All ingredients are listed on the TSCA Active inventory.       |
| DSL / NDSL  | All ingredients are listed on the DSL inventory.               |
| California Proposition 65                                       | Listed: Ethylene Glycol  |
| Rhode Island: Hazardous Substance List                          | Listed: Ethylene Glycol, Diethylene Glycol                     |
| Massachusetts: Toxic or Hazardous Substance List, Right to Know | Listed: Ethylene Glycol, Sodium Tetraborate                    |
| Pennsylvania: Hazardous Substance List                          | Listed: Ethylene Glycol, Diethylene Glycol, Sodium Tetraborate |
| New Jersey: Right to Know Hazardous Substance List              | Listed: Ethylene Glycol  |
| SARA 302  | Not Listed   |
| SARA 304  | Not Listed   |
| SARA 311  | Acute Health Hazard.   |
| SARA 312  | Acute Health Hazard.   |
| SARA 313  | Listed: Ethylene Glycol  |
| WHMIS Canada  | Not Listed   |

### 16. OTHER INFORMATION

| Revision   | Date       |
|------------|------------|
| Original   | 03/16/2016 |
| Revision 1 | 10/05/2022 |
|            |            |

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