

Section 1. Identification

Product name : AY80BX KCL SUBSTITUTE
Product code : AY80BX

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Clay Stabilizer.

Print date : 1/17/2023

Validation date : 1/17/2023


Version : 3.01

Supplier's details : Baker Petrolite LLC
 Aquaness Chemical
 12645 W. Airport Blvd.
 Sugar Land, TX 77478
 For Product Information/SDSs Call: 800-231-3606
 (8:00 a.m. - 5:00 p.m. CST, Monday - Friday) 281-276-5400

Emergency telephone number (with hours of operation) : CHEMTREC: 800-424-9300 (U.S. 24 hour)
 Baker Petrolite: 800-231-3606 (North America 24 hour)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).


Classification of the substance or mixture :  FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (oral) - Category 4
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 AQUATIC HAZARD (ACUTE) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :  Flammable liquid and vapor.
 Harmful if swallowed.
 Causes skin irritation.
 Causes serious eye damage.
 Causes damage to organs. (optic nerve)
 May cause damage to organs through prolonged or repeated exposure. (kidneys)
 Toxic to aquatic life.

Precautionary statements

Section 2. Hazards identification

- Prevention** : Wear protective gloves: > 8 hours (breakthrough time): Nitrile or Neoprene gloves.. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
- Response** : If exposed: Call a POISON CENTER or doctor. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. 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.
- Storage** : Store locked up. Store in a well-ventilated place. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % | CAS number |
|-------------------------------|---------|---------------|
| Quaternary ammonium compounds | 5 - 10 | Trade secret. |
| Ethylene glycol | 5 - 10 | 107-21-1 |
| Methanol | 5 - 10 | 67-56-1 |
| Condensed alkanolamine | 5 - 10 | Trade secret. |
| Hydrochloric acid | 1 - 5 | 7647-01-0 |
| Zinc chloride | 0.1 - 1 | 7646-85-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush the eye(s) continuously with lukewarm, gently flowing water for at least 20-60 minutes while holding the eyelid(s) open. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash affected area with soap and mild detergent for at least 20 - 60 minutes. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Causes damage to organs following a single exposure if inhaled.
- Skin contact** : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.
- Ingestion** : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain, watering, redness
- Inhalation** : No specific data.
- Skin contact** : pain or irritation, redness, blistering may occur
- Ingestion** : Adverse symptoms may include the following: stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical

- : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers

Section 7. Handling and storage

| | |
|---|--|
| | retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| Conditions for safe storage, including any incompatibilities | : Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store in original container, protected from direct sunlight. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|--|
| <input checked="" type="checkbox"/> Quaternary ammonium compounds Ethylene glycol | None. ACGIH TLV (United States, 1/2022). STEL: 10 mg/m ³ 15 minutes. Form: Inhalable fraction. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction TWA: 25 ppm 8 hours. Form: Vapor fraction ACGIH TLV (United States, 3/2016). TWA: 25 ppm, (Vapor), 0 times per shift, 8 hours. Form: Vapor OSHA PEL 1989 (United States, 3/1989). CEIL: 125 mg/m ³ , 0 times per shift, 0 hours. CEIL: 50 ppm, 0 times per shift, 0 hours. |
| Methanol | ACGIH TLV (United States, 1/2022). Absorbed through skin. STEL: 328 mg/m ³ , 0 times per shift, 15 minutes. STEL: 250 ppm, 0 times per shift, 15 minutes. TWA: 262 mg/m ³ , 0 times per shift, 8 hours. TWA: 200 ppm, 0 times per shift, 8 hours. NIOSH REL (United States, 10/2020). Absorbed through skin. STEL: 325 mg/m ³ , 0 times per shift, 15 minutes. STEL: 250 ppm, 0 times per shift, 15 minutes. TWA: 260 mg/m ³ , 0 times per shift, 10 hours. TWA: 200 ppm, 0 times per shift, 10 hours. OSHA PEL (United States, 5/2018). TWA: 260 mg/m ³ , 0 times per shift, 8 hours. TWA: 200 ppm, 0 times per shift, 8 hours. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. STEL: 325 mg/m ³ , 0 times per shift, 15 minutes. STEL: 250 ppm, 0 times per shift, 15 minutes. TWA: 260 mg/m ³ , 0 times per shift, 8 hours. TWA: 200 ppm, 0 times per shift, 8 hours. |
| Condensed alkanolamine Hydrochloric acid | None. ACGIH TLV (United States, 1/2022). |

Section 8. Exposure controls/personal protection

| | |
|---------------|---|
| Zinc chloride | <p>C: 2 ppm OSHA PEL 1989 (United States, 3/1989). CEIL: 5 ppm CEIL: 7 mg/m³ NIOSH REL (United States, 10/2020). CEIL: 5 ppm CEIL: 7 mg/m³ OSHA PEL (United States, 5/2018). CEIL: 5 ppm CEIL: 7 mg/m³ ACGIH TLV (United States, 1/2022). STEL: 2 mg/m³, 0 times per shift, 15 minutes. Form: Fume TWA: 1 mg/m³, 0 times per shift, 8 hours. Form: Fume NIOSH REL (United States, 10/2020). STEL: 2 mg/m³, 0 times per shift, 15 minutes. Form: Fume TWA: 1 mg/m³, 0 times per shift, 10 hours. Form: Fume OSHA PEL (United States, 5/2018). TWA: 1 mg/m³, 0 times per shift, 8 hours. Form: Fume OSHA PEL 1989 (United States, 3/1989). STEL: 2 mg/m³, 0 times per shift, 15 minutes. Form: Fume TWA: 1 mg/m³, 0 times per shift, 8 hours. Form: Fume</p> |
|---------------|---|

Consult local authorities for acceptable exposure limits.

If OSHA permissible exposure levels are shown above they are the OSHA 1989 levels or are from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Hughes recommends that these lower exposure levels be observed as reasonable worker protection.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles. If inhalation hazards exist, a full-face respirator may be required instead.
- Hand protection** : Chemical-resistant gloves: Nitrile or Neoprene gloves.
- Skin protection** : Wear long sleeves and chemical resistant apron to prevent repeated or prolonged skin contact.
- Respiratory protection** : If a risk assessment indicates it is necessary, use a properly fitted supplied air respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

| | |
|--|--|
| Physical state | : Liquid. [Clear.] |
| Color | : Amber to dark brown. |
| Odor | : Mild, sweet. |
| Odor threshold | : Not available. |
| pH | : 3 to 5 |
| | : Neat - without dilution. |
| Melting point/freezing point | : Not available. |
| Initial Boiling Point | : Not available. |
| Boiling point, initial boiling point, and boiling range | : Not available. |
| Flash point | : Closed cup: 46.1°C (115°F) [SFCC] |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Evaporation rate | : Not available. |
| Flammability | : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. |
| Lower and upper explosion limit/flammability limit | : Not available. |
| Vapor pressure | : 34.5 kPa (258.6 mm Hg (5 psig)) @ 54.44°C (130 F) (Reid) |
| Relative vapor density | : Not available. |
| Relative density | : 1.0384 (15.6°C) |
| Density | : 8.65 (lbs/gal) |
| Solubility in water | : Soluble |
| Partition coefficient: n-octanol/water | : <input checked="" type="checkbox"/> Not applicable. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Not available. |
| VOC | : Not available. |
| Pour Point | : Not available. |
| <u>Particle characteristics</u> | |
| Median particle size | : <input checked="" type="checkbox"/> Not applicable. |

Section 10. Stability and reactivity

| | |
|---|---|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals and alkalis.
Slightly reactive or incompatible with the following materials: acids.
Methanol is incompatible and may react with acetyl bromide, alkyl aluminum solutions, beryllium hydride, boron trichloride, nitric acid, cyanuric chloride, dichloromethane, diethylzinc, metals (granulated forms of aluminum and magnesium – including aluminum and zinc salts), phosphorus III oxide, and potassium tert-butoxide.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|--------------------|-----------------------|----------|
| Ethylene glycol | LD50 Dermal | Rabbit | 10.48 g/kg | - |
| | LD50 Oral | Man | 1700 mg/kg | - |
| | LD50 Oral | Rat | 1700 mg/kg | - |
| Methanol | LD50 Oral | Rat | 4000 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 145000 ppm | 1 hours |
| | LC50 Inhalation Gas. | Rat | 64000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | 15800 mg/kg | - |
| Hydrochloric acid | LD50 Oral | Human | 500 mg/kg | - |
| | LD50 Oral | Rat | 5600 mg/kg | - |
| | LC50 Inhalation Vapor | Mouse (as aerosol) | 400 mg/m ³ | 4 hours |
| | LC50 Inhalation Vapor | Rat | 3124 ppm | 1 hours |
| Zinc chloride | LD50 Oral | Rabbit | 900 mg/kg | - |
| | LD50 Oral | Rat - Female | 238 to 277 mg/kg | - |
| | LD50 Oral | Rat | 350 mg/kg | - |

Irritation/Corrosion

No available toxicity data.

Sensitization

No available toxicity data.

Mutagenicity

No available toxicity data.

Carcinogenicity

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Hydrochloric acid | - | 3 | - |

Reproductive toxicity

No available toxicity data.

Teratogenicity

No available toxicity data.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|----------|------------|-------------------|---------------|
| Methanol | Category 1 | oral | optic nerve |

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|------------|-------------------|---------------|
| <input checked="" type="checkbox"/> Ethylene glycol | Category 2 | - | kidneys |

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Causes damage to organs following a single exposure if inhaled.
Skin contact : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.
Ingestion : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: ,pain, watering, redness
Inhalation : No specific data.
Skin contact : pain or irritation, redness, blistering may occur
Ingestion : Adverse symptoms may include the following: ,stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------------|----------------|----------------|--------------------------|----------------------------|-------------------------------------|
| AY80BX KCL SUBSTITUTE | 1429.9 | 5630.3 | Not available. | 45.1 | Not available. |
| Quaternary ammonium compounds | 500 | Not available. | Not available. | Not available. | Not available. |
| Ethylene glycol | 1700 | 10480 | Not available. | Not available. | Not available. |
| Methanol | 100 | 300 | 64000 | 3 | Not available. |
| Hydrochloric acid | Not available. | Not available. | Not available. | 3 | Not available. |
| Zinc chloride | 350 | Not available. | Not available. | Not available. | Not available. |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|---|----------|
| Ethylene glycol | Acute LC50 100000 µg/l Marine water | Crustaceans - Crangon crangon | 48 hours |
| | Acute LC50 10000000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 8050000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Methanol | Acute EC50 16.912 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute EC50 10000000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 2500000 µg/l Marine water | Crustaceans - Crangon crangon | 48 hours |
| | Acute LC50 100 mg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic NOEC 9.96 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| Hydrochloric acid | Acute LC50 240000 µg/l Marine water | Crustaceans - Carcinus maenas | 48 hours |
| | Acute LC50 282 ppm Fresh water | Fish - Gambusia affinis | 96 hours |
| Zinc chloride | Acute EC50 26 µg/l | Algae - Navicula incerta | 96 hours |
| | Acute EC50 34 µg/l Fresh water | Algae - Chlorella vulgaris - Exponential growth phase | 72 hours |
| | Acute EC50 1.8 mg/l Fresh water | Aquatic plants - Lemna aequinoctialis | 96 hours |
| | Acute EC50 100 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 49.99 µg/l Fresh water | Crustaceans - Moina irrasa - Neonate | 48 hours |
| | Acute LC50 0.027 mg/l Marine water | Fish - Limanda punctatissima - Pre-larvae | 96 hours |
| | Chronic NOEC 0.02 mg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Chronic NOEC 1000 µg/l Fresh water | Crustaceans - Procambarus clarkii - Intermolt | 21 days |
| | Chronic NOEC 80 µg/l Fresh water | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 21 days |
| | Chronic NOEC 31.5 µg/l Fresh water | Fish - Oncorhynchus mykiss | 30 days |

Persistence and degradability

Not available.

Section 12. Ecological information

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| <input checked="" type="checkbox"/> Ethylene glycol | -1.36 | - | low |
| <input type="checkbox"/> Methanol | -0.77 | <10 | low |
| <input type="checkbox"/> Hydrochloric acid | 0.25 | - | low |

Mobility in soil





Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | IMDG | IATA |
|----------------------------|--|--|---|--|
| UN number | UN1993 | UN1993 | UN1993 | UN1993 |
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. (Contains: Methanol) | FLAMMABLE LIQUID, N.O.S. (Contains: Methanol) | FLAMMABLE LIQUID, N.O.S. (Contains: Methanol) | FLAMMABLE LIQUID, N.O.S. (Contains: Methanol) |
| Transport hazard class(es) | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. |

Additional information

DOT Classification : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

IMDG : **Emergency schedules** F-E S-D

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

DOT Reportable Quantity Ethylene glycol , 9316 gal of this product.
Methanol, 10848 gal of this product.

Marine pollutant Not available.

North-America NAERG : 128

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 12(b) one-time export:** No products were found.
TSCA 12(b) annual export notification: No products were found.
 United States inventory (TSCA 8b): All components are active or exempted.
 Clean Water Act (CWA) 307: zinc chloride; ethylbenzene
 Clean Water Act (CWA) 311: Hydrogen chloride; zinc chloride; xylene; ethylbenzene
Clean Air Act (CAA) 112 regulated toxic substances: Hydrogen chloride

United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) :

| List name | Status | Ingredient name | Name on list | Conc. |
|--|--------|-------------------|-------------------|---------|
| <input checked="" type="checkbox"/> United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) | Listed | Ethylene glycol | Ethylene glycol | 5 - 10 |
| United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) | Listed | Methanol | Methanol | 5 - 10 |
| United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) | Listed | Hydrochloric acid | Hydrochloric acid | 1 - 5 |
| United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) | Listed | Xylene | Xylenes | 0 - 0.1 |
| United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) | Listed | Ethylbenzene | Ethyl benzene | 0 - 0.1 |

SARA 302/304

| Name | % | EHS | SARA 302 TPQ | | SARA 304 RQ | |
|-------------------|-------|------|--------------|-----------|-------------|-----------|
| | | | (lbs) | (gallons) | (lbs) | (gallons) |
| Hydrochloric acid | 1 - 5 | Yes. | 500 | - | 5000 | - |

SARA 311/312

Classification : **FLAMMABLE LIQUIDS** - Category 3
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SARA 313

| | Product name | CAS number | % |
|------------------------------|---|------------|--------|
| Supplier notification | <input checked="" type="checkbox"/> Ethylene glycol | 107-21-1 | 5 - 10 |
| | Methanol | 67-56-1 | 5 - 10 |
| | Hydrochloric acid | 7647-01-0 | 1 - 5 |

California Prop. 65

Section 15. Regulatory information

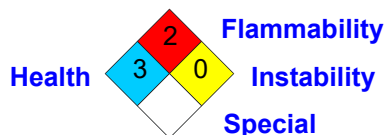
⚠️ WARNING: This product can expose you to chemicals including ethylbenzene, which is known to the State of California to cause cancer, and ethanediol; ethylene glycol and methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canada

Canada (CEPA DSL): : All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)



History

Date of printing : 1/17/2023

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

📌 Indicates information that has changed from previously issued version.

Notice to reader

NOTE: The information on this SDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

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