

# SAFETY DATA SHEET



## Section 1. Identification

**GHS product identifier** : CITGO FR WG-40XD  
**Synonyms** : Fire-resistant hydraulic fluid  
**Code** : 648326001  
**MSDS #** : 648326001

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

Not applicable.

**Supplier's details** : CITGO Petroleum Corporation  
P.O. Box 4689  
Houston, TX 77210  
sdsvend@citgo.com

**Emergency telephone number (with hours of operation)** : Technical Contact: (800) 248-4684  
Medical Emergency: (832) 486-4700  
CHEMTREC Emergency: (800) 424-9300  
(United States Only)

## 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** : ACUTE TOXICITY (oral) - Category 4  
EYE IRRITATION - Category 2A  
TOXIC TO REPRODUCTION - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

### GHS label elements

#### **Hazard pictograms**



**Signal word** : Warning

**Hazard statements** : Harmful if swallowed.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause damage to organs through prolonged or repeated exposure. (kidneys, liver)

### Precautionary statements

**General** : Keep out of reach of children.

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not get in eyes, on skin, or on clothing. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**Response** : IF exposed or concerned: Get medical advice or attention. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Wash with plenty of soap and water or use a recognized skin cleanser. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

## Section 2. Hazards identification

- Storage** : Store in accordance with all local, regional, national and international regulations. Store locked up. Store in a dry place and a closed container. Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations. Don't Pollute. Conserve Resources. Return used oil to collection centers.
- Hazards not otherwise classified** : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Fire-resistant hydraulic fluid

### CAS number/other identifiers

- CAS number** : Not applicable.

| Ingredient name                        | %         | CAS number |
|--|-----------|------------|
| 2,2' -oxybisethanol                    | ≥25 - ≤50 | 111-46-6   |
| decanoic acid                          | ≤3        | 334-48-5   |
| 2-diisopropylaminoethanol              | ≤3        | 96-80-0    |
| sodium 4(or 5)-methyl-1H-benzotriazole | ≤0.3      | 64665-57-2 |

\* = Various      \*\* = Mixture      \*\*\* = Proprietary

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

**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** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Serious effects may be delayed following exposure. Exposure to decomposition products may cause a health hazard.
- Skin contact** : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : No specific data.

### 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. In the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal.
- Specific treatments** : Treat symptomatically and supportively.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/oxides
- 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.
- 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. Avoid breathing 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).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers 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.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. 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.

**Bulk Storage Conditions:** Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name     | Exposure limits   |
|---------------------|---|
| 2,2' -oxybisethanol | <b>OARS WEEL (United States, 4/2022).</b><br>TWA: 10 mg/m <sup>3</sup> 8 hours. |

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### 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** : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

**Hand protection** : Avoid skin contact with liquid. Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Leather gloves are not protective for liquid contact.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.

## Section 8. Exposure controls/personal protection

- Respiratory protection** : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.  
**Color** : Orange-Pink  
**Odor** : Not available.  
**pH** : Not available.  
**Boiling point, initial boiling point, and boiling range** : Not available.  
**Flash point** :

| Ingredient name           | Closed cup |        |            | Open cup |       |        |
|---------------------------|------------|--------|------------|----------|-------|--------|
|                           | °C         | °F     | Method     | °C       | °F    | Method |
| ethylene oxide            | -29        | -20.2  | DIN 51755  | -29.15   | -20.5 |        |
| morpholine                | 32         | 89.6   |            | 100      | 212   |        |
| 2-diisopropylaminoethanol |            |        |            | 78.85    | 173.9 |        |
| ethanediol                | 111        | 231.8  |            | 115      | 239   |        |
| decanoic acid             | >109.85    | >229.7 | literature |          |       |        |
| 2,2' -oxybisethanol       | 138        | 280.4  |            | 138      | 280.4 |        |

- Evaporation rate** : <1 (ether (anhydrous) = 1)  
**Lower and upper explosive (flammable) limits** : Not available.

### Vapor pressure

| Ingredient name     | Vapor Pressure at 20°C |        |          | Vapor pressure at 50°C |     |        |
|---------------------|------------------------|--------|----------|------------------------|-----|--------|
|                     | mm Hg                  | kPa    | Method   | mm Hg                  | kPa | Method |
| ethylene oxide      | 1314.1117              | 175.2  | OECD 104 |                        |     |        |
| water               | 17.5                   | 2.3    |          |                        |     |        |
| Uniqua Red W201     | 17.251                 | 2.3    |          |                        |     |        |
| morpholine          | 7.35062                | 0.98   |          |                        |     |        |
| ethanediol          | 0.09226                | 0.012  |          |                        |     |        |
| 2,2' -oxybisethanol | 0.006                  | 0.0008 |          |                        |     |        |

- Relative vapor density** : >1 [Air = 1]  
**Relative density** : 1.0628  
**Density lbs/gal** : 8.85 lbs/gal  
**Density gm/cm<sup>3</sup>** : Not available.  
**Gravity, °API** : Estimated 2 @ 60 F  
**Solubility** : Soluble in the following materials: cold water.  
**Auto-ignition temperature** : Lowest known value: 229°C (444.2°F) (2,2' -oxybisethanol).  
**Flow time (ISO 2431)** : Not available.

### Particle characteristics

- Median particle size** : Not applicable.

## Section 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s). |
| <b>Chemical stability</b>                 | : The product is stable.  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                               |
| <b>Conditions to avoid</b>                | : No specific data.   |
| <b>Incompatible materials</b>             | : No specific data.   |
| <b>Hazardous decomposition products</b>   | : 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 |
|--|-------------|---------|-------------|----------|
| 2,2' -oxybisethanol                    | LD50 Dermal | Rabbit  | 11890 mg/kg | -        |
|  | LD50 Oral   | Rat     | 12000 mg/kg | -        |
| decanoic acid                          | LD50 Oral   | Rat     | >10 g/kg    | -        |
| 2-diisopropylaminoethanol              | LD50 Oral   | Rat     | 860 mg/kg   | -        |
| sodium 4(or 5)-methyl-1H-benzotriazole | LD50 Oral   | Rat     | 640 mg/kg   | -        |

**Conclusion/Summary** : **2,2' -oxybisethanol**: The major hazard from diethylene glycol occurs following the ingestion of relatively large single doses. Diethylene glycol can cause central nervous system depression and hydropic degenerative lesions in the liver and kidney. Anuria from tubular degeneration can prove fatal within a few days. In a 1937 case study, 105 fatalities occurred among 353 people who ingested a solution of sulfanilamide in an aqueous mixture containing 72% diethylene glycol. The symptoms included nausea, dizziness, and pain in the kidney region. In a few days, oliguria and anuria, with death resulting from uremic poisoning. (Amdur, Doull and Klaasen, 1991). Autopsies revealed that the principal signs of intoxication were in the kidneys and liver (cortical necroses, nephrosis with severe vacuolization of the tubular epithelium, liver congestion and fatty degeneration. (AIHA, 1999)

#### Irritation/Corrosion

| Product/ingredient name                | Result                   | Species | Score | Exposure          | Observation |
|--|--------------------------|---------|-------|-------------------|-------------|
| 2,2' -oxybisethanol                    | Eyes - Mild irritant     | Rabbit  | -     | 50 mg             | -           |
|  | Skin - Mild irritant     | Human   | -     | 72 hours 112 mg l | -           |
| decanoic acid                          | Skin - Mild irritant     | Rabbit  | -     | 500 mg            | -           |
|  | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 mg   | -           |
|  | Skin - Severe irritant   | Rabbit  | -     | 24 hours 100 %    | -           |
| 2-diisopropylaminoethanol              | Skin - Mild irritant     | Rabbit  | -     | 500 mg            | -           |
| sodium 4(or 5)-methyl-1H-benzotriazole | Skin - Severe irritant   | Rabbit  | -     | 50 %              | -           |

**Skin** : No additional information.

**Eyes** : No additional information.

**Respiratory** : No additional information.

#### Sensitization

Not available.



## Section 11. Toxicological information

**Skin** : No additional information.

**Respiratory** : No additional information.

### Mutagenicity

Not available.

**Conclusion/Summary** : No additional information.

### Carcinogenicity

Not available.

**Conclusion/Summary** : No additional information.

### Reproductive toxicity

Not available.

**Conclusion/Summary** : **2,2' -oxybisethanol**: Reproductive toxicity was noted in a mouse continuous breeding study with large doses of diethylene glycol in drinking water. In addition, health effects including liver and kidney disease were noted in studies with pregnant rats receiving undiluted diethylene glycol. The relevance of these large dose studies to human health is not certain.

### Teratogenicity

Not available.

**Conclusion/Summary** : No additional information.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

| Name                | Category   | Route of exposure | Target organs  |
|---------------------|------------|-------------------|----------------|
| 2,2' -oxybisethanol | Category 2 | oral              | kidneys, liver |

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Serious effects may be delayed following exposure. Exposure to decomposition products may cause a health hazard.

**Skin contact** : Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.

**Ingestion** : Harmful if swallowed.

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

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations



## Section 11. Toxicological information

**Ingestion** : No specific data.

### 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

Not available.

**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.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name                | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| CITGO FR WG-40XD                       | 1141.0       | N/A            | N/A                      | N/A                        | N/A                                 |
| 2,2' -oxybisethanol                    | 500          | 11890          | N/A                      | N/A                        | N/A                                 |
| 2-diisopropylaminoethanol              | 860          | N/A            | N/A                      | N/A                        | N/A                                 |
| sodium 4(or 5)-methyl-1H-benzotriazole | 640          | N/A            | N/A                      | N/A                        | N/A                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name   | Result                               | Species                    | Exposure |
|---------------------------|--------------------------------------|----------------------------|----------|
| 2,2' -oxybisethanol       | Acute LC50 75200000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| 2-diisopropylaminoethanol | Acute LC50 201000 µg/l Fresh water   | Fish - Pimephales promelas | 96 hours |

**Conclusion/Summary** : Not available.

### Persistence and degradability

Not available.

**Conclusion/Summary** : Not available.

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| 2,2' -oxybisethanol     | -1.98              | 100 | low       |
| decanoic acid           | 4.09               | -   | high      |

### Mobility in soil

## Section 12. Ecological information

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

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                            | DOT Classification | IMDG           | IATA           |
|----------------------------|--------------------|----------------|----------------|
| UN number                  | Not regulated.     | Not regulated. | Not regulated. |
| UN proper shipping name    | -                  | -              | -              |
| Transport hazard class(es) | -                  | -              | -              |
| Packing group              | -                  | -              | -              |
| Environmental hazards      | No.                | No.            | No.            |

### Additional information

**DOT Classification** : **Reportable quantity** 49492.7 lbs / 22469.7 kg [5585.1 gal / 21142 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

**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.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 311:** sodium hydroxide  
 This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

## Section 15. Regulatory information

### [SARA 302/304](#)

#### [Composition/information on ingredients](#)

| Name           | %    | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|----------------|------|------|--------------|-----------|-------------|-----------|
|                |      |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| ethylene oxide | <0.1 | Yes. | 1000         | -         | 10          | -         |

**SARA 304 RQ** : 49492.7 lbs / 22469.7 kg [5585.1 gal / 21142 L]

### [SARA 311/312](#)

**Classification** : ACUTE TOXICITY (oral) - Category 4  
 EYE IRRITATION - Category 2A  
 TOXIC TO REPRODUCTION - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
 HNOC - Injection Hazards


#### [Composition/information on ingredients](#)

| Name                                   | %         | Classification   |
|--|-----------|--|
| 2,2' -oxybisethanol                    | ≥25 - ≤50 | ACUTE TOXICITY (oral) - Category 4<br>EYE IRRITATION - Category 2B<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2<br>HNOC - Injection Hazards    |
| decanoic acid                          | ≤3        | SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>HNOC - Injection Hazards   |
| 2-diisopropylaminoethanol              | ≤3        | FLAMMABLE LIQUIDS - Category 4<br>ACUTE TOXICITY (oral) - Category 4<br>HNOC - Injection Hazards   |
| sodium 4(or 5)-methyl-1H-benzotriazole | ≤0.3      | ACUTE TOXICITY (oral) - Category 4<br>SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>TOXIC TO REPRODUCTION - Category 2<br>HNOC - Injection Hazards |

### [State regulations](#)

**Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: DIISOPROPYLETHANOLAMINE  
**Pennsylvania** : The following components are listed: ETHANOL, 2,2'-OXYBIS-

### [California Prop. 65 Clear and Reasonable Warnings \(2018\)](#)

 **WARNING:** This product can expose you to chemicals including Ethylene oxide, which is known to the State of California to cause cancer, and Ethylene Glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| Ingredient name | %    | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|-----------------|------|--------|--------------|---------------------------|---------------------------------|
| ethanediol      | <0.3 | No.    | Yes.         | -                         | Yes.                            |
| ethylene oxide  | <0.1 | Yes.   | Yes.         | Yes.                      | Yes.                            |

### [International regulations](#)

#### [Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

### [Inventory list](#)

**United States** : All components are listed or exempted.

## Section 15. Regulatory information

|                          |  |
|--------------------------|--|
| <b>Australia</b>         | : Not determined.  |
| <b>Canada</b>            | : Not determined.  |
| <b>China</b>             | : Not determined.  |
| <b>Japan</b>             | : <b>Japan inventory (CSCL)</b> : At least one component is not listed.<br><b>Japan inventory (ISHL)</b> : Not determined. |
| <b>Malaysia</b>          | : Not determined   |
| <b>New Zealand</b>       | : At least one component is not listed.  |
| <b>Philippines</b>       | : Not determined.  |
| <b>Republic of Korea</b> | : Not determined.  |
| <b>Taiwan</b>            | : Not determined.  |
| <b>Thailand</b>          | : Not determined.  |
| <b>Turkey</b>            | : Not determined.  |
| <b>Viet Nam</b>          | : Not determined.  |

## Section 16. Other information

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



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### Procedure used to derive the classification

| Classification  | Justification      |
|---|--------------------|
| ACUTE TOXICITY (oral) - Category 4                              | Calculation method |
| EYE IRRITATION - Category 2A                                    | Calculation method |
| TOXIC TO REPRODUCTION - Category 2                              | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |

### History

|                                       |             |
|---------------------------------------|-------------|
| <b>Date of printing</b>               | : 5/7/2024  |
| <b>Date of issue/Date of revision</b> | : 5/7/2024  |
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|                             |  |
|-----------------------------|--|
| <b>Key to abbreviations</b> | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>UN = United Nations |
|-----------------------------|--|

## Section 16. Other information

**References** : Not available.

Indicates information that has changed from previously issued version.

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