

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

074298931

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

074298873

### Section 1. Identification

**GHS product identifier** : OPTIBOND FL PRIMER

**Other means of identification** : Not available.

**Product type** : Liquid.

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

**Product use** : Dental Products: Adhesive.

**Area of application** : Professional applications.

**Manufacturer** : **Kerr Corporation**  
1717 West Collins Avenue  
Orange, CA 92867-5422  
Telephone no.: 1-800-KERR-123

**e-mail address of person responsible for this SDS** : edwin.varela@kavokerrgroup.com

**Emergency telephone number (with hours of operation)** : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

### 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 2  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
SKIN SENSITIZATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation and Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 26%

#### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Highly flammable liquid and vapor.  
Causes serious eye damage.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause drowsiness and dizziness.  
May cause damage to organs through prolonged or repeated exposure.

#### Precautionary statements

**Date of issue/Date of revision** : 11/25/2013 **Date of previous issue** : 11/25/2013 **Version** : 1 1/13

## Section 2. Hazards identification

- Prevention** : Wear protective gloves: > 8 hours (breakthrough time): Small Quantity / Short term exposure: Nitrile gloves. Vinyl. Long term exposure: polyvinyl alcohol (PVA). Rubber gloves.. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical 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 physician.
- 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
- Other means of identification** : Not available.

### CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : Not available.

| Ingredient name                                   | Other names                                       | %     | CAS number |
|---------------------------------------------------|---------------------------------------------------|-------|------------|
| 2-hydroxyethyl methacrylate                       | 2-hydroxyethyl methacrylate                       | 10-30 | 868-77-9   |
| ethanol                                           | ethanol                                           | 10-30 | 64-17-5    |
| 2-[2-(methacryloyloxy)ethoxycarbonyl]benzoic acid | 2-[2-(methacryloyloxy)ethoxycarbonyl]benzoic acid | 10-30 | 27697-00-3 |
| glycerol phosphate dimethacrylate                 | Not available.                                    | 5-10  | -          |

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

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

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.

## Section 4. First aid measures

- Ingestion** : Large quantity: Get medical attention immediately. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
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** : Treat symptomatically.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : In case of major fire and large quantities: 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, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

## Section 5. Fire-fighting measures

|                                                       |                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific hazards arising from the chemical</b>     | : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.                                                                                                                                           |
| <b>Hazardous thermal decomposition products</b>       | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>phosphorus oxides                                                                                                                                                                                                                                          |
| <b>Special protective actions for fire-fighters</b>   | : In case of major fire and large quantities: 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. |
| <b>Special protective equipment for fire-fighters</b> | : 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

|                                    |                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>For non-emergency personnel</b> | : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely. |
| <b>For emergency responders</b>    | : Low release. See also the information in "For non-emergency personnel".                                                              |

|                                  |                                                                                                                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental precautions</b> | : Low release. 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

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Small spill</b> | : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container. |
| <b>Large spill</b> | : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container. |

## Section 7. Handling and storage

### Precautions for safe handling

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protective measures</b>                    | : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 retain product residue and can be hazardous. Do not reuse container. |
| <b>Advice on general occupational hygiene</b> | : 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 a segregated and approved area. 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. 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name | Exposure limits                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ethanol         | <b>ACGIH TLV (United States, 3/2012).</b><br>STEL: 1000 ppm 15 minutes.<br><b>OSHA PEL 1989 (United States, 3/1989).</b><br>TWA: 1000 ppm 8 hours.<br>TWA: 1900 mg/m <sup>3</sup> 8 hours.<br><b>NIOSH REL (United States, 1/2013).</b><br>TWA: 1000 ppm 10 hours.<br>TWA: 1900 mg/m <sup>3</sup> 10 hours.<br><b>OSHA PEL (United States, 6/2010).</b><br>TWA: 1000 ppm 8 hours.<br>TWA: 1900 mg/m <sup>3</sup> 8 hours. |

**Appropriate engineering controls** : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: 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.

**Environmental exposure controls** : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : 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 contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

## Section 8. Exposure controls/personal protection

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hand protection</b>        | : Chemical-resistant, impervious 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. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Small Quantity / Short term exposure: Nitrile gloves. Vinyl. Long term exposure: polyvinyl alcohol (PVA). Rubber gloves. |
| <b>Body protection</b>        | : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Recommended: Lab coat.                                                                                                                                                                                   |
| <b>Other skin protection</b>  | : 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Respiratory protection</b> | : No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Use a properly fitted, air-purifying or air-fed 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. Recommended: high concentrations: Approved/certified respirator with organic vapor cartridge.                                                                                                                                                                                                            |

## Section 9. Physical and chemical properties

|                                                     |                                                                 |
|-----------------------------------------------------|-----------------------------------------------------------------|
| <b>Appearance</b>                                   |                                                                 |
| <b>Physical state</b>                               | : Liquid.                                                       |
| <b>Color</b>                                        | : Yellow. [Light]                                               |
| <b>Odor</b>                                         | : Fruity.                                                       |
| <b>Odor threshold</b>                               | : Not available.                                                |
| <b>pH</b>                                           | : 2                                                             |
| <b>Melting point</b>                                | : Not available.                                                |
| <b>Boiling point</b>                                | : Not available.                                                |
| <b>Flash point</b>                                  | : Closed cup: 18°C (64.4°F) [Ethanol]                           |
| <b>Evaporation rate</b>                             | : Not available.                                                |
| <b>Flammability (solid, gas)</b>                    | : Not applicable.                                               |
| <b>Lower and upper explosive (flammable) limits</b> | : Not available.                                                |
| <b>Vapor pressure</b>                               | : Not available.                                                |
| <b>Vapor density</b>                                | : Not available.                                                |
| <b>Relative density</b>                             | : Not available.                                                |
| <b>Solubility</b>                                   | : Soluble in the following materials: cold water and hot water. |
| <b>Solubility in water</b>                          | : Not available.                                                |
| <b>Partition coefficient: n-octanol/water</b>       | : Not available.                                                |
| <b>Auto-ignition temperature</b>                    | : Not available.                                                |
| <b>Decomposition temperature</b>                    | : Not available.                                                |
| <b>SADT</b>                                         | : Not available.                                                |
| <b>Viscosity</b>                                    | : Not available.                                                |

## Section 9. Physical and chemical properties

**Density** : 0.96 g/cm<sup>3</sup>

## 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.  
Contains: Polymerization inhibitors. Loss of inhibitor or heat may cause polymerization. Under normal conditions of storage and use, hazardous polymerization 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.

**Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

**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 |
|-----------------------------|-----------------------|---------|--------------------------|----------|
| 2-hydroxyethyl methacrylate | LD50 Oral             | Rat     | 4230 mg/kg               | -        |
| ethanol                     | LC50 Inhalation Vapor | Rat     | 124700 mg/m <sup>3</sup> | 4 hours  |
|                             | LD50 Oral             | Rat     | 7 g/kg                   | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure            | Observation |
|-------------------------|--------------------------|---------|-------|---------------------|-------------|
| ethanol                 | Eyes - Moderate irritant | Rabbit  | -     | 0.066666667 minutes | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 100 milligrams      | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 100 microliters     | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 milligrams      | -           |
|                         |                          |         |       | 400 milligrams      | -           |

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

## Section 11. Toxicological information

Not available.

### Specific target organ toxicity (single exposure)

| Name                                              | Category   | Route of exposure | Target organs                                     |
|---------------------------------------------------|------------|-------------------|---------------------------------------------------|
| 2-hydroxyethyl methacrylate                       | Category 3 | Not applicable.   | Respiratory tract irritation                      |
| ethanol                                           | Category 3 | Not applicable.   | Respiratory tract irritation and Narcotic effects |
| 2-[2-(methacryloyloxy)ethoxycarbonyl]benzoic acid | Category 3 | Not applicable.   | Respiratory tract irritation                      |
| glycerol phosphate dimethacrylate                 | Category 3 | Not applicable.   | Respiratory tract irritation                      |

### Specific target organ toxicity (repeated exposure)

| Name    | Category   | Route of exposure | Target organs |
|---------|------------|-------------------|---------------|
| ethanol | Category 2 | Not determined    | liver         |

### Aspiration hazard

Not available.

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

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

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

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
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

## Section 11. Toxicological information

**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. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

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

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

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

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

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value     |
|-------|---------------|
| Oral  | 10434.1 mg/kg |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name     | Result                               | Species                                                                | Exposure |
|-----------------------------|--------------------------------------|------------------------------------------------------------------------|----------|
| 2-hydroxyethyl methacrylate | Acute LC50 227000 µg/l Fresh water   | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| ethanol                     | Acute EC50 17.921 mg/l Marine water  | Algae - Ulva pertusa                                                   | 96 hours |
|                             | Acute EC50 2000 µg/l Fresh water     | Daphnia - Daphnia magna                                                | 48 hours |
|                             | Acute LC50 25500 µg/l Marine water   | Crustaceans - Artemia franciscana - Larvae                             | 48 hours |
|                             | Acute LC50 42000 µg/l Fresh water    | Fish - Oncorhynchus mykiss                                             | 4 days   |
|                             | Chronic NOEC 4.995 mg/l Marine water | Algae - Ulva pertusa                                                   | 96 hours |
|                             | Chronic NOEC 0.375 µl/L Fresh water  | Fish - Gambusia holbrooki - Larvae                                     | 12 weeks |

### Persistence and degradability

| Product/ingredient name     | Test                                                 | Result                | Dose | Inoculum |
|-----------------------------|------------------------------------------------------|-----------------------|------|----------|
| 2-hydroxyethyl methacrylate | 301C Ready Biodegradability - Modified MITI Test (I) | 92 to 100 % - 14 days | -    | -        |

  

| Product/ingredient name     | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| 2-hydroxyethyl methacrylate | -                 | -          | Readily          |
| ethanol                     | -                 | -          | Readily          |

## Section 12. Ecological information

### Bioaccumulative potential

| Product/ingredient name     | LogP <sub>ow</sub> | BCF | Potential |
|-----------------------------|--------------------|-----|-----------|
| 2-hydroxyethyl methacrylate | 0.42               | -   | low       |
| ethanol                     | -0.35              | -   | low       |

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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. 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                                                                                                                                                                                | IMDG                                                                                          | IATA                                                                                                                                                                                                                                                                                                                        |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                  | UN1170                                                                                                                                                                                            | UN1170                                                                                        | UN1170                                                                                                                                                                                                                                                                                                                      |
| UN proper shipping name    | Ethanol mixture                                                                                                                                                                                   | ETHANOL mixture                                                                               | Ethanol mixture                                                                                                                                                                                                                                                                                                             |
| Transport hazard class(es) | 3<br>                                                                                                          | 3<br>      | 3<br>                                                                                                                                                                                                                                  |
| Packing group              | II                                                                                                                                                                                                | II                                                                                            | II                                                                                                                                                                                                                                                                                                                          |
| Environmental hazards      | No.                                                                                                                                                                                               | No.                                                                                           | No.                                                                                                                                                                                                                                                                                                                         |
| Additional information     | <p><b>Limited quantity</b><br/>Yes.</p> <p><b>Packaging instruction</b><br/><b>Passenger aircraft</b><br/>Quantity limitation: 5 L</p> <p><b>Cargo aircraft</b><br/>Quantity limitation: 60 L</p> | <p><b>Emergency schedules (EmS)</b><br/>F-E, S-D</p> <p><b>Special provisions</b><br/>144</p> | <p><b>Passenger and Cargo Aircraft</b><br/>Quantity limitation: 5 L<br/>Packaging instructions: 353</p> <p><b>Cargo Aircraft Only</b><br/>Quantity limitation: 60 L<br/>Packaging instructions: 364</p> <p><b>Limited Quantities - Passenger Aircraft</b><br/>Quantity limitation: 1 L<br/>Packaging instructions: Y341</p> |

## Section 14. Transport information

|  |                                               |  |                                            |
|--|-----------------------------------------------|--|--------------------------------------------|
|  | <b>Special provisions</b><br>24, IB2, T4, TP1 |  | <b>Special provisions</b><br>A3, A58, A180 |
|--|-----------------------------------------------|--|--------------------------------------------|

**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 Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** mequinol  
**United States inventory (TSCA 8b):** Not determined.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Fire hazard  
Immediate (acute) health hazard  
Delayed (chronic) health hazard

#### Composition/information on ingredients

| Name                                               | %    | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|----------------------------------------------------|------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| 2-hydroxyethyl methacrylate                        | 30   | No.         | No.                        | No.      | Yes.                            | No.                             |
| ethanol                                            | 22   | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |
| 2-[2-(methacryloyloxy)ethoxycarbonyl] benzoic acid | 15   | No.         | No.                        | No.      | Yes.                            | No.                             |
| glycerol phosphate dimethacrylate                  | >9.9 | No.         | No.                        | No.      | Yes.                            | No.                             |

### SARA 313

Not applicable.

### State regulations

**Massachusetts** : The following components are listed: ETHYL ALCOHOL

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL

## Section 15. Regulatory information

**Pennsylvania** : The following components are listed: DENATURED ALCOHOL

**California Prop. 65**

None of the components are listed.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

|                  |   |   |
|------------------|---|---|
| Health           | * | 2 |
| Flammability     |   | 4 |
| Physical hazards |   | 0 |
|                  |   |   |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### 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.

### History

**Date of issue/Date of revision** : 11/25/2013

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**Version** : 1

**Prepared by** : IHS

### 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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### References

: HCS (U.S.A.)- Hazard Communication Standard  
 International transport regulations

Indicates information that has changed from previously issued version.

### Notice to reader

## Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.