

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
133 Terminal Avenue
Clark, NJ 07066

L'Oreal Canada
4895 rue Hickmore
Ville St-Laurent, H4Y 1K5
Canada

Emergency Telephone Number:
1-800-535-5053 (International: 352-323-3500)
In Canada – 1-613-996-6666 (Canutec) (*666 cellular)

For further information:
1-732-499-2741

Poison Control Number: 412-390-3326

Product Name: Redken Blonde Idol Base Breaker (Cool & Clear)

Recommendations on use: Personal care product to be mixed with companion product(s) in accordance with instructions and applied to hair for cosmetic enhancement.

Restrictions on use: Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Avoid direct contact with eyes. Liquid dispensed from the container is considered flammable until dry.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: DANGER

| Symbol | Classification | Hazard Statement | Prevention Statements |
|--|---------------------------------|-------------------------------|--|
|  | Flammable Liquids Category 3 | Flammable liquid and vapor | <ul style="list-style-type: none"> Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment. Use only non-sparking tools. Take precautionary measures against static discharge. |
|  | Eye Damage Category 1 | Causes serious eye damage | <ul style="list-style-type: none"> Wear eye protection appropriate for the manufacturing operation being performed (goggles or face shield). |

| Symbol | Classification | Hazard Statement | Prevention Statements |
|--------------------|----------------------------|------------------------|---|
| No symbol required | Skin Irritation Category 2 | Causes skin irritation | <ul style="list-style-type: none"> Wash hands thoroughly after handling. Wear nitrile or vinyl protective gloves. |

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use.

Hazards Not Otherwise Classified: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

| <u>INGREDIENT:</u> | <u>CAS NO.</u> | <u>% WT</u> |
|---------------------------|-----------------------|--------------------|
| Ethyl Alcohol | 64-17-5 | ≤ 8.2% |
| PEG-4 Rapeseedamide | 85536-23-8 | ≤ 8.2% |
| Glyceryl Lauryl Ether | 9022-75-75 | ≤ 7.0% |
| Deceth-3 | 66455-15-0 | ≤ 7.0% |
| Laureth-5 Carboxylic Acid | 27306-90-7 | ≤ 4.5% |
| Ethanolamine | 141-43-5 | ≤ 3.7% |
| Hexylene Glycol | 107-41-5 | ≤ 3.0% |
| Ammonium Hydroxide | 1336-21-6 | ≤ 1.3% |

SECTION 4: FIRST AID MEASURES

Response Statements:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing until material is sufficiently removed from the eye. **If eye irritation persists:** Immediately call a Poison Control Center or get medical advice/attention.

IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Wash contaminated clothing before reuse. See product labeling/insert for additional treatment recommendations.

IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a Poison Control Center if you feel unwell.

IF SWALLOWED: Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Causes serious eye damage. Causes skin irritation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

EXTINGUISHING MEDIA: In case of fire: Use carbon dioxide, dry chemical and/or foam to extinguish. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Please review the tools available at your location to ensure proper availability of equipment.

Notes for those trained to participate in an emergency:

SPECIAL FIRE FIGHTING PROCEDURES: Treat as flammable liquid. Follow National Fire Protection Association Guidelines or local guidelines appropriate for emergency response. Minimize all sources of static electricity.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon, ammonia, hydrocarbons and/or derivatives.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Notes for non-emergency personnel:

Consult trained response personnel for clean-up of large spills or locations where providing preliminary control of the chemical release is hazardous. Hazardous locations include areas where ignition sources cannot be controlled. Isolate the area and deny entry to unnecessary and unprotected personnel. Sections 2, 5, 7 and 8 of this document should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is released, control the spill using absorbent pads while wearing the protective equipment as noted below. Clean the area with detergent and water. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Nitrile or vinyl gloves, safety glasses/goggles, protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may be used depending upon the size of the spill and occupational exposure limits. Respiratory protection may include the use of organic vapor cartridges. Refer to Section 8 for additional information.

Notes for those trained to participate in an emergency:

ACCIDENTAL RELEASE MEASURES: Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Wash area completely with water. Take care to avoid contact with wet surfaces or walkways that may become slick when residue is present. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with section 13 of this document.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Do not eat, drink or smoke while working with hazardous materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. Do not expose to heat or flame. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Employees should be advised not to handle flammable products in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Maintain a clean work environment which includes use of properly functioning containers, proper housekeeping practices.

CONDITIONS FOR SAFE STORAGE:

Storage precautions for unpackaged product (manufacturing environment): Store in a well-ventilated place and keep cool. Keep containers closed when not in use. Minimize inventory. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Appropriate fire suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

Storage precautions for packaged product: See consumer packaging.

Keep away from open drains and access to the environment.

Incompatible materials: Oxidizing agents. Store away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

| Component Name (CAS-No.) | Reference | TWA | | STEL/CEILING | |
|--|-----------|-------|-------------------|--------------|-------------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ |
| Ethyl Alcohol (64-17-5) | OSHA PEL | 1,000 | 1,900 | -- | -- |
| | ACGIH TLV | -- | -- | 1,000 | 1,880 |
| | NIOSH REL | 1,000 | 1,900 | -- | -- |
| Ethanolamine (141-43-5) | OSHA PEL | 3 | 6 | -- | -- |
| | ACGIH TLV | 3 | 7.5 | 6 | 15 |
| | NIOSH REL | 3 | 8 | 6 | 15 |
| Hexylene Glycol (1309-37-1) | OSHA PEL | -- | -- | -- | -- |
| | ACGIH TLV | -- | -- | 25 (C) | 121 (C) |
| | NIOSH REL | -- | -- | 25 (C) | 125 (C) |
| Ammonium Hydroxide (as Ammonia) (7664-41-7) | OSHA PEL | 50 | 35 | -- | -- |
| | ACGIH TLV | 25 | 17 | 35 | 24 |
| | NIOSH REL | 25 | 18 | 35 | 27 |

No occupational exposure values have been published for other constituents noted in Section 3.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, nitrile or vinyl gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------------------|-----------------------------------|-------------------------|--------------------------------|
| APPEARANCE: | Liquid | | |
| ODOR: | Ammonia | | |
| ODOR THRESHOLD: | Not Available | | |
| pH: | 9.8 – 10.8 | | |
| MELTING/FREEZING POINT: | F: Not Available | C: Not Available | |
| BOILING POINT: | F: > 212 | C: > 100 | |
| FLASH POINT: | F: 100.4 | C: 38 | METHOD USED: Closed cup |
| FIRE POINT: | F: > 212 | C: > 100 | METHOD USED: ISO 2592 |
| EVAPORATION RATE: | Not Available (Butyl acetate = 1) | | |
| FLAMMABILITY: | Not Applicable to Liquids | | |
| FLAMMABLE LIMITS IN AIR: | Ethyl Alcohol: 19.0% UEL; | 3.3% LEL | |
| | Ethanolamine: 23.5% UEL; | 3.0% LEL | |
| | Ammonia: 28.0% UEL; | 15.0% LEL | |
| VAPOR PRESSURE (mmHg): | @ 70F: Not Available | @ 21 C: Not Available | |
| VAPOR DENSITY (AIR = 1): | @ 70F: Not Available | @ 21 C: Not Available | |
| RELATIVE DENSITY (H2O = 1): | Not Available | | |
| SOLUBILITY IN WATER: | Not Available | | |

PARTITION COEFFICIENT: Not Available
AUTOIGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon, ammonia, hydrocarbons, and/or derivatives.

SECTION 11: TOXICOLOGICAL INFORMATION

Where information is not listed specifically for constituents, published information was not available.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:

SKIN CORROSION/IRRITATION: Causes skin irritation
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye damage
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed
INHALATION: None expected

ROUTES OF EXPOSURE: Inhalation, ingestion, eyes, skin

SYMPTOMS: Causes serious eye damage. Causes skin irritation.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

| Material | Route | Species | Test Results |
|-----------------------|-------------------------|----------------|-------------------|
| Ethyl Alcohol | Oral LD ₅₀ | Rat | > 6,200 mg/kg bw |
| Ethyl Alcohol | Dermal LD _{Lo} | Rabbit | > 20,000 mg/kg bw |
| Ethyl Alcohol | LC ₅₀ (4 hr) | Rat | > 8,000 mg/L air |
| PEG-4 Rapeseedamide | Oral LD ₅₀ | Rat (OECD 401) | > 2,000 mg/kg bw |
| PEG-4 Rapeseedamide | Dermal LD ₅₀ | Rat (OECD 402) | > 2,000 mg/kg bw |
| PEG-4 Rapeseedamide | LC ₅₀ (4 hr) | Rat (OECD 436) | 6 mg/L air |
| Glyceryl Lauryl Ether | Oral LD ₅₀ | Rat (OECD 423) | > 2,000 mg/kg bw |
| Glyceryl Lauryl Ether | Dermal LD ₅₀ | Rat (OECD 402) | > 2,000 mg/kg bw |
| Deceth-3 | Oral LD ₅₀ | Rat | > 2,000 mg/kg bw |
| Deceth-3 | Dermal LD ₅₀ | Rat (OECD 402) | > 2,000 mg/kg bw |

| Material | Route | Species | Test Results |
|---------------------------|-------------------------|--------------------|-------------------------------|
| Laureth-5 Carboxylic Acid | Oral LD ₅₀ | Rat (OECD 401) | > 2,000 mg/kg bw |
| Ethanolamine | Oral LD ₅₀ | Rat (OECD 401 eq.) | 1,510 mg/kg bw |
| Ethanolamine | Dermal LD ₅₀ | Rat (OECD 402 eq.) | 2,504 mg/kg bw |
| Ethanolamine | LC ₅₀ (6 hr) | Rat | > 1,300 mg/m ³ air |
| Ammonium Hydroxide | Oral LD ₅₀ | Rat (OECD 401) | 350 mg/kg bw |
| Ammonium Hydroxide | LC ₅₀ (1 hr) | Rat | 11,590 mg/L air |

Skin Corrosion/Irritation:

| | |
|-----------------------------------|--|
| <i>Ethyl Alcohol:</i> | Not Irritating (Rabbit, OECD 404) |
| <i>PEG-4 Rapeseedamide:</i> | Severely Irritating (Rabbit, OECD 404) |
| <i>Glyceryl Lauryl Ether:</i> | Corrosive (Rabbit, OECD 404) |
| <i>Deceth-3:</i> | Slightly Irritating (Rabbit, OECD 404) |
| <i>Laureth-5 Carboxylic Acid:</i> | Slightly Irritating (Rabbit, OECD 404) |
| <i>Ethanolamine:</i> | Corrosive (Rabbit, OECD 404) |
| <i>Hexylene Glycol:</i> | Slightly Irritating (Rabbit, OECD 404) |
| <i>Ammonium Hydroxide</i> | Irritating (5 - 10%); Corrosive (>10%) (Rat, OECD 404) |

Serious Eye Damage/Irritation:

| | |
|-----------------------------------|---|
| <i>Ethyl Alcohol:</i> | 25% - Not Irritating / 50% - Mildly Irritating / 100% - Irritating (Rabbit, OECD 405) |
| <i>PEG-4 Rapeseedamide:</i> | Slightly Irritating (Rabbit, OECD 405) |
| <i>Glyceryl Lauryl Ether:</i> | Corrosive |
| <i>Deceth-3:</i> | Corrosive (Rabbit, OECD 405) |
| <i>Laureth-5 Carboxylic Acid:</i> | Corrosive (Rabbit, OECD 405) |
| <i>Ethanolamine:</i> | Corrosive (Rabbit, OECD 405) |
| <i>Hexylene Glycol:</i> | Slightly Irritating (Rabbit, OECD 405); Irritating (Human, Vapors) |
| <i>Ammonium Hydroxide</i> | Corrosive (Rabbit) |

Respiratory Irritation:

| | |
|---------------------------|-------------------------------------|
| <i>Hexylene Glycol:</i> | May cause irritation (Human) |
| <i>Ammonium Hydroxide</i> | Highly Irritating (>50 ppm) (Human) |

Skin Sensitization:

| | |
|-----------------------------------|--|
| <i>Ethyl Alcohol:</i> | Not Sensitizing (Guinea Pig) |
| <i>PEG-4 Rapeseedamide:</i> | Not Sensitizing (Guinea Pig, OECD 406) |
| <i>Glyceryl Lauryl Ether:</i> | Not Sensitizing (Guinea Pig, OECD 406) |
| <i>Deceth-3:</i> | Not Sensitizing (Guinea Pig) |
| <i>Laureth-5 Carboxylic Acid:</i> | Not Sensitizing (Guinea Pig, OECD 406) |
| <i>Ethanolamine:</i> | Not Sensitizing (Guinea Pig) |
| <i>Hexylene Glycol:</i> | Not Sensitizing (Guinea Pig, OECD 406) |
| <i>Ammonium Hydroxide</i> | Not Sensitizing (Guinea Pig) |

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:

| | |
|--------------------------------------|---|
| NOAEL (Ethyl Alcohol, oral): | >2% (2400 mg/kg) (Rat) |
| LOAEL (Ethyl Alcohol, oral): | 3% (3600 mg/kg) (Rat) |
| NOAEL (PEG-4 Rapeseedamide, oral): | 15 mg/kg bw/d (28d) (Rat – M, OECD 407) |
| NOAEL (Glyceryl Lauryl Ether, oral): | 150 mg/kg bw/d (28d) (Rat, OECD 407) |
| NOAEL (Deceth-3, oral): | 80-400 mg/kg bw/d (90d) (Rat, OECD 408) |
| NOAEL (Deceth-3, dermal): | 80 mg/kg bw/d (90d) (Rat, OECD 411) |
| NOAEL (Ethanolamine, oral): | 300 mg/kg bw/d (Rat, OECD 416) |
| NOEL (Hexylene Glycol, oral): | 450 mg/kg bw/d (90d) (Rat, OECD 408) |

CARCINOGENICITY:

| Component Name (CAS-No.) | OSHA | ACGIH | NTP | IARC |
|--------------------------|------|--------|-----|------|
| Ethyl Alcohol (64-17-5) | -- | TLV-A3 | -- | -- |

Notes: ACGIH TLV-A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans

MUTAGENICITY:

| | |
|-----------------------------------|---|
| <i>Ethyl Alcohol:</i> | A variety of <i>in vitro</i> and <i>in vivo</i> tests have produced negative results. |
| <i>PEG-4 Rapeseedamide:</i> | A variety of <i>in vitro</i> and <i>in vivo</i> tests have produced negative results. |
| <i>Glyceryl Lauryl Ether:</i> | A variety of <i>in vitro</i> tests have produced negative results. |
| <i>Deceth-3:</i> | A variety of <i>in vitro</i> tests have produced negative results. |
| <i>Laureth-5 Carboxylic Acid:</i> | A variety of <i>in vitro</i> tests have produced negative results. |
| <i>Ethanolamine:</i> | A variety of <i>in vitro</i> and <i>in vivo</i> tests have produced negative results. |
| <i>Hexylene Glycol:</i> | A variety of <i>in vitro</i> tests have produced negative results. |
| <i>Ammonium Hydroxide:</i> | A variety of <i>in vitro</i> tests have produced negative results. |

REPRODUCTIVE TOXICITY:

| | |
|-------------------------------|--|
| <i>Ethyl Alcohol:</i> | NOAEL: 20.7 g/kg/day (15%) (Mouse, OECD 416 eq.) – No effects on fertility |
| <i>PEG-4 Rapeseedamide:</i> | NOEL: 500 mg/kg bw/d (Rat, OECD 421) – No effects on fertility |
| <i>Glyceryl Lauryl Ether:</i> | NOEL: 600 mg/kg bw/d (Rat, OECD 421) |
| <i>Deceth-3:</i> | NOAEL: > 250 mg/kg bw/d (Rat, OECD 416) |
| <i>Ethanolamine:</i> | NOAEL: 300 mg/kg bw/day (Rat, OECD 416) |
| <i>Hexylene Glycol:</i> | NOAEL: 1,000 mg/kg bw/d (Rat, OECD 421) |

DEVELOPMENTAL TOXICITY/TERATOGENICITY:

| | |
|-------------------------------|---|
| <i>Ethyl Alcohol:</i> | NOAEL: ≥ 20,000 ppm (Rat, OECD 414 eq.) – Incident of malformations |
| <i>PEG-4 Rapeseedamide:</i> | NOEL: 500 mg/kg bw/d (Rat, OECD 421) – No effects on development |
| <i>Glyceryl Lauryl Ether:</i> | NOEL: 600 mg/kg bw/d (Rat, OECD 421) |
| <i>Deceth-3:</i> | NOAEL: > 250 mg/kg bw/d (Rat, OECD 416) |
| <i>Ethanolamine:</i> | NOAEL: 450 mg/kg bw/day (Rat, OECD 414) |
| <i>Hexylene Glycol:</i> | NOAEL: 300 mg/kg bw/d (Rat, OECD 414) |
| <i>Ammonium Hydroxide:</i> | NOAEL: 1,000 mg/kg bw/d (Mouse) |

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE |
|---------------------------|-----------------------------|----------------|---------------------|----------|
| Ethyl Alcohol | LC ₅₀ | 12.9 - 15.3g/L | Pimephales promelas | 96 h |
| PEG-4 Rapeseedamide | LC ₅₀ (OECD 203) | 2.9 mg/L | Oncorhynchus mykiss | 96 h |
| Glyceryl Lauryl Ether | LC ₅₀ (OECD 203) | 1.61 mg/L | Danio rerio | 96 h |
| Deceth-5 | LC ₅₀ | 11.5 mg/L | Oncorhynchus mykiss | 96 h |
| Laureth-5 Carboxylic Acid | LC ₅₀ | 7.5 mg/L | Oncorhynchus mykiss | 96 h |
| Ethanolamine | LC ₅₀ (D1345-70) | 170 mg/L | Carassius auratus | 96 h |
| Hexylene Glycol | LC ₅₀ (OECD 203) | 10,700 mg/L | Pimephales promelas | 96 h |
| Ammonium Hydroxide | LC ₅₀ | 1.73 mg/L | Lepomis cyanellus | 96 h |

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE |
|-----------------------|-----------------------------|------------|--------------------|----------|
| Ethyl Alcohol | EC ₅₀ | 5,012 mg/L | Ceriodaphnia Dubia | 48 h |
| PEG-4 Rapeseedamide | EC ₅₀ (OECD 202) | 3.8 mg/L | Daphnia magna | 48 h |
| Glyceryl Lauryl Ether | EC ₅₀ (OECD 202) | 0.875 mg/L | Daphnia magna | 48 h |
| Deceth-5 | EC ₅₀ | 5.1 mg/L | Daphnia magna | 48 h |
| Ethanolamine | EC ₅₀ (EU C.2) | 65 mg/L | Daphnia magna | 48 h |
| Hexylene Glycol | EC ₅₀ (OECD 202) | 5,410 mg/L | Daphnia magna | 48 h |
| Ammonium Hydroxide | EC ₅₀ (E729-80) | 101 mg/L | Daphnia magna | 48 h |

TOXICITY TO AQUATIC PLANTS

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE |
|-----------------------|-----------------------------|------------|---------------------------------|----------|
| Ethyl Alcohol | EC ₅₀ | 675 mg/L | Chlorella Vulgaris | 96 h |
| PEG-4 Rapeseedamide | EC ₅₀ (OECD 201) | 410 mg/L | Desmodesmus subspicatus | 72 h |
| Glyceryl Lauryl Ether | EC ₅₀ (OECD 201) | 1.11 mg/L | Algae | 72 h |
| Ethanolamine | EC ₅₀ (EU C.3) | 15 mg/L | Green algae | 72 h |
| Hexylene Glycol | EC ₅₀ (OECD 201) | > 429 mg/L | Pseudokirchneriella subcapitata | 72 h |

TOXICITY TO MICROORGANISMS

| INGREDIENT NAME | TEST | RESULT | SPECIES | EXPOSURE |
|-----------------------|-----------------------------|--------------|----------------------------|----------|
| Ethyl Alcohol | EC ₅₀ | 32,100 mg/L | Photobacterium phosphoreum | 15 min |
| PEG-4 Rapeseedamide | EC ₅₀ (OECD 209) | > 1,000 mg/L | Activated sludge | 3 h |
| Glyceryl Lauryl Ether | EC ₅₀ (OECD 209) | 31.6 mg/L | Activated sludge | 3 h |
| Ethanolamine | EC ₁₀ (OECD 209) | > 1,000 mg/L | Activated sludge | 30 min |
| Hexylene Glycol | NOEC | 200 mg/L | Pseudomonas aeruginosa | 10 d |

PERSISTENCY AND DEGRADABILITY:

| | |
|-----------------------------------|---|
| <i>Ethyl Alcohol:</i> | Readily Biodegradable – OECD 301 B – 97% (28d) |
| <i>PEG-4 Rapeseedamide:</i> | Readily Biodegradable – OECD 301 B – 96% (28d) |
| <i>Glyceryl Lauryl Ether:</i> | Readily Biodegradable – OECD 301 B – 88% (28d) |
| <i>Deceth-3:</i> | Readily Biodegradable |
| <i>Laureth-5 Carboxylic Acid:</i> | Readily Biodegradable – OECD 301 B – 78% (28d) |
| <i>Ethanolamine:</i> | Readily Biodegradable – OECD 301 A – >90% (21d) |
| <i>Hexylene Glycol:</i> | Readily Biodegradable – OECD 301 F – 81% (28d) |
| <i>Ammonium Hydroxide</i> | Readily Biodegradable – Converts to nitrates |

BIOACCUMULATIVE POTENTIAL:

| | |
|-------------------------------|---|
| <i>Ethyl Alcohol:</i> | logBCF _(calculated) = 0.5 (BCFWIN v2.15) – Not expected to bioaccumulate |
| <i>PEG-4 Rapeseedamide:</i> | log Pow: 5 – Potential to bioaccumulate |
| <i>Glyceryl Lauryl Ether:</i> | log Pow: 3.757; BCF: 311.5 (QSAR) – Not expected to bioaccumulate |
| <i>Deceth-3:</i> | Not expected to bioaccumulate |
| <i>Ethanolamine:</i> | log Pow: -1.91 – Not expected to bioaccumulate |
| <i>Hexylene Glycol:</i> | log Pow: <1; BCF: 3.16 – Not expected to bioaccumulate |

SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to Section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Appropriate US DOT containers should be utilized which may include fiberboard boxes for products and metal or plastic drums for liquids. These containers should meet the packaging specifications required for DOT compliance.

WASTE DISPOSAL METHOD: This product is ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal. This material must not be disposed through sewage.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

In accordance with US Department of Transportation 49 CFR 173.120(a)(4), products associated with this document have been determined to have a flash point greater than 35°C and fire point greater than 100°C, therefore these materials are exempt from the US DOT Hazardous Materials Shipping Regulations.

- **IN CONSUMER PACKAGING:** Exempt
- **OTHER THAN CONSUMER PACKAGING:** Exempt

Transport Via Water

In accordance with International Maritime Dangerous Goods Code 2.3.1.3.2, products associated with this document have been determined to have a flash point greater than 35°C and fire point greater than 100°C, therefore these materials are exempt from the IMDG Code.

- **IN CONSUMER PACKAGING:** Exempt
- **OTHER THAN CONSUMER PACKAGING:** Exempt

Transport Via Air (Domestic/International)

In accordance with International Civil Aviation Organization Technical Instruction Part 2, 3.1.3 b), products associated with this document have been determined to have a flash point greater than 35°C and fire point greater than 100°C, therefore these materials are exempt from the ICAO TI.

- **IN CONSUMER PACKAGING:** Exempt
- **OTHER THAN CONSUMER PACKAGING:** Exempt

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 2 Reactivity: 0 Other: None

Workplace Hazardous Materials Identification System: Class B Flammable Material; Class E; Corrosive Material (Eye)

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This is the first issuance of this document.

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