This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ZEMEA® USP-NF Propanediol
Product Use : For professional users only., Cosmetics, For the manufacturing of pharmaceutical products., Solvent, Fragrances, Personal care, Washing and cleaning products (including solvent based products), Monomer, Pharmaceutical, Polymer

Restrictions on use : See Section 16
Do not use product for anything outside of the above specified uses.

Manufacturer/Supplier : DuPont Tate & Lyle Bio Products Company
198 Blair Bend Drive
Loudon TN 37774
United States of America (USA)

Product Information : +1-866-404.7933
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Not classified as a hazardous substance or mixture according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 2012.

Other hazards
No applicable data available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES
## General advice

Inhalation: No hazards which require special first aid measures.

Skin contact: No hazards which require special first aid measures.

Eye contact: Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

Ingestion: No hazards which require special first aid measures.

Most important symptoms/effects, acute and delayed: No applicable data available.

Protection of first-aiders: No applicable data available.

Notes to physician: No applicable data available.

## SECTION 5. FIREFIGHTING MEASURES

### Suitable extinguishing media

Water, Foam, Dry chemical, Carbon dioxide (CO2)

### Unsuitable extinguishing media

No applicable data available.

### Specific hazards

Exposure to decomposition products may be a hazard to health.

### Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

### Further information

Evacuate personnel to safe areas. Evacuate personnel and keep upwind of fire.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): No applicable data available.

Environmental precautions: Do not flush into surface water or sanitary sewer system.
Spill Cleanup: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Accidental Release Measures: No applicable data available.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel): No special precautions are needed in handling this material.

Handling (Physical Aspects): No applicable data available.

Dust explosion class: No applicable data available.

Storage: Store in a cool, dry place. Keep container closed to prevent contamination. Store bulk quantities under nitrogen blanket. Keep away from heat, sparks and flames.

Storage period: No applicable data available.

Storage temperature: No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection: A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the OSHA respiratory protection information located at 29CFR 1910.134.

Eye protection: Wear safety glasses with side shields.

Skin and body protection: Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Exposure Guidelines

Exposure Limit Values

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.
# SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Physical state: liquid
- Form: liquid
- Color: transparent

**Odor**
- Odor: slight

**Odor threshold**
- No applicable data available.

**pH**
- No applicable data available.

**Melting point/freezing point**
- Melting point: -27.65 °C (-17.77 °F) estimated

**Boiling point/boiling range**
- Boiling point: 214.22 °C (417.60 °F) estimated

**Flash point**
- 129 °C
  - Method: Cleveland open cup - COC

**Evaporation rate**
- No applicable data available.

**Flammability (solid, gas)**
- No applicable data available.

**Upper explosion limit**
- No applicable data available.

**Lower explosion limit**
- 2.6 vol%
  - estimated Information taken from reference works and the literature.

**Vapor pressure**
- 0.0267 hPa at 25 °C (77 °F)
  - estimated, Information taken from reference works and the literature.

**Vapour density**
- No applicable data available.

**Specific gravity (Relative density)**
- 1.053
  - estimated

**Water solubility**
- completely soluble, in all proportions

Infinity
ZEMEA® USP-NF Propanediol

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No applicable data available.
Chemical stability : Stable at normal temperatures and storage conditions.
 Possibility of hazardous reactions : Hazardous polymerization will not occur.
Conditions to avoid : Temperature > 129 °C (> 264 °F)
Incompatible materials : Strong acids and oxidizing agents
Hazardous decomposition products : No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

ZEMEA® USP-NF Propanediol
Further information : No data is available on the product itself.

Carcinogenicity
The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.
### SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : No data is available on the product itself.

### SECTION 13. DISPOSAL CONSIDERATIONS

- **Waste disposal methods - Product** : Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

- **Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

- Not regulated in transportation by DOT/IMO/IATA.
- Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

- **NZ HSNO Status** : Exempt

- **TSCA** : In compliance with TSCA-active Inventory requirements for commercial purposes.

- **SARA 311/312 Hazard classification** : No SARA Hazards

- **SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

- **California Prop. 65** : This product does not contain any substances requiring a warning under the Safe Drinking Water and Toxic Enforcement Act.
SECTION 16. OTHER INFORMATION

Restrictions for use: Do not use DuPont Tate & Lyle Bio Products materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont Tate & Lyle Bio Products under a written contract that is consistent with DuPont Tate & Lyle Bio Products policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont Tate & Lyle Bio Products representative. You may also request a copy of the DuPont Tate & Lyle Bio Products POLICY Regarding Medical Applications and DuPont Tate & Lyle Bio Products CAUTION Regarding Medical Applications.

ZEMEA(R) is a registered trademark of DuPont Tate & Lyle Bio Products.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.