



## Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard ( 29CFR 1910.1200)

Product name LFP

### 1. Identification

#### 1.1. Product Identifier

Product name LFP

#### 1.2. Other means of identification

Product code 446926

Synonyms None

Chemical Family No information available

#### 1.3. Recommended use of the chemical and restrictions on use

Recommended use No information available.

Uses advised against Consumer use.

#### 1.4. Details of the Supplier of the Safety Data Sheet

Company Name Johnson Controls  
1400 Pennbrook Parkway  
Lansdale, PA 19446

Contact point Product Stewardship at 1-715-735-7411  
E-mail address psra@tycofp.com

#### 1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

### 2. Hazards Identification

#### Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.2. Label Elements

#### Hazard Statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

#### Precautionary Statements

#### 2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

#### 2.4. Other Information



Product code 446926

/ Product name LFP

/

PAGE 2 / 9

Not Available.

### 3. Composition/information on Ingredients

#### 3.1. Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

### 4. First aid measures

#### 4.1. Description of first aid measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

#### 4.2. Most Important Symptoms and Effects, Both Acute and Delayed

**Symptoms** No information available.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

**Note to physicians** Treat symptomatically.

### 5. Fire-fighting measures

#### 5.1. Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.2. Unsuitable Extinguishing Media

None.

#### 5.3. Specific Hazards Arising from the Chemical

No information available.

#### 5.4. Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.



**5.5. Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

- Personal Precautions** Ensure adequate ventilation, especially in confined areas.
- For emergency responders** Use personal protection recommended in Section 8.

**6.2. Environmental Precautions**

- Environmental Precautions** See Section 12 for additional Ecological Information.

**6.3. Methods and material for containment and cleaning up**

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Cleaning Up** Pick up and transfer to properly labeled containers.

**7. Handling and Storage**

**7.1. Precautions for Safe Handling**

- Advice on safe handling** Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

**7.2. Conditions for safe storage, including any incompatibilities**

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.
- Incompatible Materials** Strong oxidizing agents. Strong acids. Strong bases.

**8. Exposure Controls/Personal Protection**

**8.1. Control Parameters**

- Exposure guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**8.2. Appropriate Engineering Controls**

- Engineering controls** Ensure adequate ventilation, especially in confined areas.

**8.3. Individual protection measures, such as personal protective equipment**

- Eye/Face Protection** Avoid contact with eyes. Tight sealing safety goggles.
- Skin and Body Protection** Wear protective gloves and protective clothing.



Product code 446926

/ Product name LFP

/

PAGE 4 / 9

**Respiratory Protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Ventilation**

Use local exhaust or general dilution ventilation to control exposure with applicable limits

**8.4. General hygiene considerations**

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and Chemical Properties**

**9.1. Information on basic physical and chemical properties**

Physical State	Liquid	Color	Colorless
Odor	Slight		
Odor Threshold	No data available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7 - 8	
Melting point/freezing point	- 24 °C / - 11 °F	
Boiling point / boiling range	120 °C / 248 °F	
Flash Point	No data available	
Evaporation Rate	No data available	
Flammability (solid, gas)	No data available	
Flammability limit in air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	
Specific gravity	1.122 - 1.129	
Water Solubility	No data available	
Solubility in Other Solvents	No data available	
Partition coefficient	< -2.04	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Kinematic viscosity	No data available	

**10. Stability and Reactivity**

**10.1. Chemical Stability**

Stable under recommended storage conditions.

**10.2. Reactivity**

No data available

**10.3. Possibility of hazardous reactions**

None under normal processing.



Product code 446926

Product name LFP

PAGE 5 / 9

**Hazardous Polymerization** Hazardous polymerization does not occur.

#### **10.4. Conditions to Avoid**

Protect from direct sunlight.

#### **10.5. Incompatible Materials**

Strong oxidizing agents. Strong acids. Strong bases.

#### **10.6. Hazardous decomposition products**

Carbon oxides. Nitrogen oxides (NOx).

### **11. Toxicological Information**

#### **11.1. Information on Likely Routes of Exposure**

<b>Product information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye Contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

#### **Component Information**

##### **Acute Toxicity**

#### **11.2. Information on Toxicological Effects**

**Symptoms** No information available.

#### **11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Product information

Method	species	Exposure Route	Effective dose	Exposure time	Results
OECD Test No. 403: Acute Inhalation Toxicity	Rat				LD50 2.12 mg/l
OECD Test No. 425: Acute Oral Toxicity: Up-and-Down Procedure	Rat				> 2000 mg/kg
OECD Test No. 402: Acute Dermal Toxicity	Rat				LD50 > 2000 mg/kg

Product information

Method	species	Exposure Route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			Mild eye irritation



Product code 446926

Product name LFP

PAGE 6 / 9

Product information

Method	species	Exposure Route	Results
OECD Test No. 406: Skin Sensitization	guinea pig		Not a skin sensitizer

Product information

Method	species	Results
OECD 471		Not mutagenic in AMES Test

<b>Carcinogenicity</b>	No information available.
<b>Reproductive Toxicity</b>	No information available.
<b>STOT - Single Exposure</b>	No information available.
<b>STOT - Repeated Exposure</b>	No information available.
<b>Target organ effects</b>	Eyes, Kidney, Respiratory System, Skin.
<b>Aspiration Hazard</b>	No information available.

**11.4. Numerical Measures of Toxicity - Product information**

The following values are calculated based on chapter 3.1 of the GHS document

**12. Ecological Information**

**12.1. Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Glycerol 56-81-5	-	LC50 (96h) static 51 - 57 mL/L Oncorhynchus mykiss	EC50 (24h) > 500 mg/L Daphnia magna
Potassium Acetate 127-08-2	-	LC50 (96h) semi-static = 6800 mg/L Oncorhynchus mykiss	EC50 (24h) = 7170 mg/L Daphnia magna
Triethanolamine 102-71-6	EC50 (72h) = 216 mg/L Desmodesmus subspicatus EC50 (96h) = 169 mg/L Desmodesmus subspicatus	LC50 (96h) static 450 - 1000 mg/L Lepomis macrochirus LC50 (96h) static > 1000 mg/L Pimephales promelas LC50 (96h) flow-through 10600 - 13000 mg/L Pimephales promelas	EC50 (24h) = 1386 mg/L Daphnia magna
Sodium Citrate 68-04-2	EC50 (96h) 18000 - 32000 mg/L Chlorella vulgaris	LC50 (96h) 18000 - 32000 mg/L Poecilia reticulata	EC50 (48h) 5600 - 10000 mg/L Daphnia magna
Diethanolamine 111-42-2	EC50 (72h) = 7.8 mg/L Desmodesmus subspicatus EC50 (96h) 2.1 - 2.3 mg/L Pseudokirchneriella subcapitata	LC50 (96h) flow-through 4460 - 4980 mg/L Pimephales promelas LC50 (96h) static 1200 - 1580 mg/L Pimephales promelas LC50 (96h) static 600 - 1000 mg/L Lepomis macrochirus	EC50 (48h) = 55 mg/L Daphnia magna

**Concentrate**

Method	OECD Test No. 203: Fish, Acute Toxicity Test
Species	Oncorhynchus mykiss (rainbow trout)
Endpoint type	LC50
Exposure time	96h
Results	> 100 mg/L

Method	Acute Toxicity Daphnia magna
Species	Daphnia magna



Product code 446926

/ Product name LFP

/

PAGE 7 / 9

Endpoint type	EC50
Exposure time	48h
Results	> 100 mg/L

### 12.2. Persistence and Degradability

No information available.

### Chemical Oxygen Demand (mg/L)

Biodegradability (B.O.D./C.O.D.) 268/431

### 12.3. Bioaccumulation

No information available.

### 12.4. Other Adverse Effects

No information available

## **13. Disposal Considerations**

### 13.1. Waste Treatment Methods

#### **Disposal of wastes**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

#### **Contaminated Packaging**

Do not reuse container.

## **14. Transport Information**

DOT NOT REGULATED

TDG NOT REGULATED

MEX NOT REGULATED

ICAO (air) NOT REGULATED

IATA NOT REGULATED

IMDG NOT REGULATED

## **15. Regulatory Information**

### 15.1. International Inventories

**TSCA** Complies

**DSL/NDSL** Complies



Product code 446926

Product name LFP

PAGE 8 / 9

ENCS Complies  
IECSC Complies  
KECL Complies  
PICCS Complies  
AICS Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

**15.2. US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute Health Hazard No  
Chronic health hazard No  
Fire Hazard No  
Sudden Release of Pressure Hazard No  
Reactive Hazard No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**15.3. US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Diethanolamine - 111-42-2	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Glycerol 56-81-5	X	X	X





Product code 446926

/

Product name LFP

/

PAGE 9 / 9

Triethanolamine 102-71-6	X	X	X
Diethanolamine 111-42-2	X	X	X

**16. Other information, including date of preparation of the last revision**

<u>NFPA</u>	Health Hazards 0	Flammability 0	Instability 0	Physical and chemical properties -
<u>HMIS</u>	Health Hazards 0	Flammability 0	Physical Hazards 0	Personal Protection X

Revision date 28-Mar-2018

Revision note No information available.

**Disclaimer**

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.

End of Safety Data Sheet