SECTION 1 - CHEMICAL IDENTIFICATION

PRODUCT NAME: Terrific Broth Liquid
RPI CATALOG #: T88175
SUPPLIER'S NAME: Research Products International Corp.
SUPPLIERS ADDRESS: 410 N Business Center Drive Mount Prospect, Il 60056
EMERGENCY CONTACT: 1-800-424-9300
OTHER INFORMATION: 847-635-7330

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not hazardous
Signal word: None
Hazard statement(s): Not hazardous

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children.
P501	Dispose of contents/ container to an approved waste disposal plant.

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Composition
Water	7732-18-5	Q. S
Yeast Extract	8013-01-2	24 g/L
Dipotassium Phosphate	7758-11-4	9.4 g/L
Casein Digest Peptone	91079-40-2	12 g/L
Glycerol	56-81-5	0.4 %
Dihydrogen Potassium Phosphate	7778-77-0	2 g/L

SECTION 4 - FIRST-AID MEASURES

4.1 Description of first aid measures
General advice: Consult a doctor and show this safety data sheet.

i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatment needed: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture: No data available.

5.3 Precautions for fire-fighters: Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

5.4 Further information: No data available

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

6.2 Environmental precautions: Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up: Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections: For required PPE see section 8. For disposal see section 13.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling: Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities: Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Store at room temperature.

7.3 Specific end use(s): Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV	OSHA PEL
Glycerol	TWA: 10 mg/m^3	TWA: 10 mg/m^3	TWA: 10 mg/m^3	(Vacated) TWA: 10 mg/m^3 Vacated) TWA: 5 mg/m^3 TWA: 15 mg/m^3 TWA: 5 mg/m^3

- **ACGIH:** American Conference of Governmental Industrial Hygienists.
- **OSHA:** Occupational Safety and Health Administration.
- **NIOSH IDLH:** The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

8.2 Exposure Controls

i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

8.3 Personal protective equipment

i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

v. **Control of environmental exposure:** No special environmental precautions required.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid	**Vapor Pressure**	No Data Available
Odor	No Data Available	**Vapor Density**	No Data Available
Odor Threshold	No Data Available	**Relative Density**	No Data Available
pH	No Data Available	**Water Solubility**	No Data Available
Melting / Freezing Point	No Data Available	**Partition Coefficient**	No Data Available
Initial Boiling Point Range	No Data Available	**Auto-Ignition Temperature**	No Data Available
Flash Point	No Data Available	**Decomposition Temperature**	No Data Available
Evaporation Rate	No Data Available	**Viscosity**	No Data Available
Flammability (Solid, Gas)	No Data Available	**Explosive Properties**	No Data Available
Upper / Lower Flammability Or Explosive Limits	No Data Available	**Oxidizing Properties**	No Data Available

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.
Hazardous Decomposition Products: None under normal use conditions.
Incompatibilities: Strong Oxidizing Agent.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dihydrogen Potassium Phosphate	Not Listed	>4640 mg/kg (Rabbit)	Not Listed
Dipotassium Phosphate	8 g/kg (Rat)	Not Listed	Not Listed
Glycerin	12600 mg/kg (Rat)	10 g/kg (Rabbit)	570 mg/m3 (Rat) 1 h

SECTION 12 - ECOLOGICAL INFORMATION

Eco Toxicity: This product contains the following substance(s) which are hazardous for the environment.

Component	Freshwater Fish	Microtox	Water Flea
Glycerol	51 - 57 mL/L LC50 96 h	Not Listed	500 mg/L EC50 > 24h

Mobility

Component	log Pow
Glycerol	-1.76

Persistence and degradability/ Bioaccumlative potential/ Mobility in soil: No data available
Results of PBT and vPvB assessment: No data available
Other adverse effects: No data available
Chronic Toxicity: There are no known carcinogenic chemicals in this product

SECTION 13 - DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

DOT	TDG	IATA	IMDG/IMO
Not regulated	Not regulated	Not regulated	Not regulated

SECTION 15 - REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

INGREDIENT: Water				CAS #:7732-18-5			EINECS: 231-791-2		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	-	Listed	Listed	Listed

INGREDIENT: Dipotassium Phosphate				CAS #:7758-11-4			EINECS: 231-834-5		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

INGREDIENT: Glycerol				CAS #:56-81-5			EINECS: 200-289-5		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

INGREDIENT: Dihydrogen Potassium Phosphate					CAS #:7778-77-0		EINECS: 231-913-4		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

USA FEDERAL REGULATION

TSCA 12(b)/ OSHA/ CERCLA/Clean Water Act/Clean Air Act: Not Applicable
SARA 313/SARA 311/312 HAZARDOUS CATEGORIZATION: Not Hazard Class
California Proposition 65: This product does not contain any Proposition 65 chemicals.

HMIS Rating

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
0		0	0

NFPA Rating

Health hazard	Fire Hazard	Reactivity Hazard
0	0	0

STATE RIGHT TO KNOW

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	Listed	-	-
Glycerol	Listed	Listed	Listed	-	Listed

US DEPARTMENT OF TRANSPORTATION

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
No	No	No

U.S. DEPARTMENT OF HOMELAND SECURITY: This product does not contain any DHS chemicals.

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

This SDS complies with the requirements of Regulation (EC).

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Research Products International Corp. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research and development purposes use only.