Date: 12/2023

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Stearic Acid, Vegetable TRV1MB, TRV1MBLR

Product Use:

This product is commonly used in the production of soaps, emulsifiers, lubricants, carriers, and soap surfactants.

Manufacturer/Supplier's Name:	Customer Contact Phone:	Email:
TWIN RIVER TECHNOLOGIES	**888-929-8780**	**Orders@trtlp.com**
Mailing Address:	**Customer Website:**	
780 Washington Street, Quincy, MA 02169	**www.twinrivertechnologies.com**	

Emergency Telephone Number:

Please call TRT's Emergency Response Service Company, VelocityEHS:
Reference TRT's Contract # MIS9075839
US, Canada, Puerto Rico, & the U.S. Virgin Islands Emergency #:1-800-255-3924
General International Emergency #s:1-800-255-3924 or 1-813-248-0585
Australia: 1-300-954-583 Brazil: 0-800-591-6042 Mexico: 800-099-0731
India: 000-800-100-4086 China: 400-120-0751

2. HAZARDS IDENTIFICATION

GHS – not a controlled product under Global Harmonized Systems

- European Hazard Classification: This product is not classified as dangerous according to Directive 67/548/EEC.
- Emergency Overview: North America — Non- Hazardous
- Potential Health Effects:
  - Eye: Accidental exposure to the eyes will cause only a mild but transient irritation.
  - Skin: Mild, primary skin irritation with prolonged or repeated contact. Heated product may cause thermal burns if contacted.
  - Inhalation: Not applicable at ambient temperature.
  - Ingestion: May cause irritation of gastrointestinal tract.

  If product is heated, vaporization can occur. Eye, skin, and upper respiratory irritation may occur.
- Physical/Chemical Hazards: None identified.
- Environmental Hazards: None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation (mixture): Substance

Name	CAS No.	Wt/Wt %	EC No.	EC Symbols	EC R-phrases
Fatty Acids, C16-18 and C18 unsaturated	67701-03-5	100	2669285	Not applicable	Not applicable

Occupational exposure limits, if applicable, are listed in Section 8.
LC/LD50 information is listed in Section 11.

4. FIRST AID MEASURES

- Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Skin: Wash skin with soap and water upon contact. Remove contaminated clothing. If irritation develops, get medical attention. Wash clothing before reuse.
- Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion: If swallowed, do not induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

- Extinguishing Media: SMALL FIRES: Use CO_2 or dry chemical.
  LARGE FIRES: Use foam.
- Unsuitable extinguishing media: Do not use water as an extinguishing media.
- Flash Point and method: >360° F (>180° C) PMCC
- Explosive limits in air: Upper: Not available
  Lower: Not available
- Auto-ignition temperature: Not available
- Sensitivity to mechanical impact/static discharge: Not available.
- Special Protective Equipment: Wear self-contained breathing apparatus and full protective clothing.
- Other Fire Fighting Considerations: Cool containers with flooding quantities of water until well after fire is out.
- Exposure hazards: Does not decompose up to 400° F (204° C). Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions: An appropriate NIOSH/MSHA approved respirator should be used if a mist, vapor or dust is generated. Wear suitable gloves and eye/face protection. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Environmental Precautions: Minimize contamination of drains, surface and ground waters.
- Procedures for Spill/Leak Clean-up: Neutralization not required. Contain spill. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for disposal. Dispose as any grease or oily material in compliance with Federal, State, and/or Local requirements.

Refer to Section 8 for additional personal protection information.
Refer to Section 13 for disposal considerations.

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7. HANDLING AND STORAGE

• Handling:	Handle in accordance with good hygiene and safety procedures. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Since empty containers contain product residue and can be dangerous, follow all hazard warnings and precautions even after container is emptied. Keep away from sources of ignition.
• Storage:	Keep away from possible contact with incompatible substances. Should be stored in resin-lined steel, aluminum, stainless steel, or reinforced fiberglass vessels. Do not store near possible sources of ignition.
• Specific use(s):	Follow bulk handling and storage procedures as noted above.

Refer to Section 6 for clean-up of spillages.
Refer to Section 13 for disposal considerations.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

• General Precautions:		Good industrial hygiene should be followed. Avoid breathing (heated) vapors. Avoid eye and skin contact.
• Exposure Limit Values:		Not established.
• Exposure Controls:		
Engineering Controls:	Ventilation:	Local exhaust: preferred Mechanical: may be necessary if working at elevated temperatures or in enclosed areas.
Personal Protective Equipment:	Eye:	Goggles or face shield with goggles, dependent upon potential exposure.
	Skin:	Protective gloves: Rubber or plastic Dependent upon degree of potential exposure, additional personal protective equipment may be required, such as chemical boots and full protective clothing.
	Inhalation:	None required for ambient temperature, although an appropriate NIOSH/MSHA approved air-purifying respirator should be used if a mist, vapor or dust is generated. A NIOSH/MSHA approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
Other Controls:		Boots, eye wash fountain, safety shower, apron, protective clothing.
• Environmental Exposure Controls:		Contact Twin Rivers Technologies for specific Community information.

9. PHYSICAL AND CHEMICAL PROPERTIES

• General Information:

Physical State at 72° F (22° C):	Solid
Appearance:	Water white
Odor:	Musty, fatty
Odor Threshold:	Not available

• Important health, safety and environmental information:

pH:	Not available
Boiling point/Boiling range:	Over 500° F (260° C) @ 760 mm Hg (101.3kPa)
Flash Point & Method:	408° F (208.9° C) PMCC
Flammability (solid, gas):	Not available
Explosive properties:	Not available
Oxidizing properties:	Not available
Vapor pressure:	@ 72° F (22° C) < 0.75 mm Hg
Relative density:	0.85 - 0.90 @ 49/25° C
Freezing point:	Not available
Solubility: Water solubility:	Negligible @ 72° F (22° C)
Fat solubility (solvent-oil to be specified):	Not available
Partition coefficient: n-octanol/water:	Not available
Viscosity:	Not available
Vapor density:	Not available
Evaporation Rate (nBuOAc=1):	Not available
Explosive Limits:	Not available
Auto ignition temperature:	Not available
Coefficient of water/oil distribution:	Not available

10. STABILITY AND REACTIVITY

• Stability:	Stable under normal operational procedures.
• Conditions to Avoid:	None identified.
• Materials to Avoid:	Avoid strong oxidizing agents.
• Hazardous Decomposition Products:	Does not decompose up to 400° F (204° C).Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.
• Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

IRRITATION DATA	**Palmitic Acid**	**Stearic Acid**
Eye, rabbit	Not irritating	Not irritating
Skin, rabbit	Not irritating	Not irritating** 500 mg/24H MOD*
Skin, human	75 mg/3D-I MLD	75 mg/3D-I MLD

ACUTE TOXICITY:	**Palmitic Acid**	**Stearic Acid**
Oral, rat LD50	>10 gm/kg	>10 gm/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fishes:	**Palmitic Acid**	**Stearic Acid**
Goldfish (lethal dose)	11 mg/l (sodium salt)	14 mg/l (sodium salt)
Red killifish 96h LD50	150 mg/l (sodium salt)	125 mg/l (sodium salt)

Aquatic Invertebrates

Daphnia magna: Palmitic and stearic acids; not acutely toxic to Daphnia Magna at concentrations within its aqueous solubility (water hardness of 215 & 54 mg/L $CACO_3$).

Algae:	Palmitic Acid	Stearic Acid
Scenedesmus subspicatus EC50	Not available	> 1016 mg/l
Scenedesmus subspicatus NOEC	Not available	> 1016 mg/l

Biodegradation
Sodium stearate: 89% in 28 days "Sealed Vessel Test" (Modified Sturm Test)

13. DISPOSAL CONSIDERATIONS

DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. Do not dispose of via sinks, drains or into the immediate environment.

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated for transport
Not classified in RID/ADR - ADNR - IMDG - ICAO/IATA

15. ADDITIONAL REGULATORY INFORMATION

INVENTORY STATUS:
Listed on TSCA (USA), AICS (Australia), DSL (Canada), EINECS (EU), IECSC (China), KECI (Korea), New Zealand (Composite List of Single Component Substances to be considered for Transfer (April 2003)), PICCS (Philippines)

California Proposition 65 Components: None

WGK water endangering class 1, slightly water endangering

Canada
HAZARDOUS INGREDIENTS – WHMIS (Canadian Workplace Hazardous Materials Information System)
This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

EUROPE
This product safety data sheet was prepared in compliance with Directive 2001/58/EC.

References: RTECS ACCESSION NUMBER RT4550000 – Palmitic acid
*RTECS ACCESSION NUMBER WI2800000 – Stearic acid
**Acute toxicity and irritation studies on a series of fatty acids. J. Am. Oil Chem. Soc., 56 (1979), p. 760A.
K. Verschueren. Handbook of environmental data on organic chemicals, 3rd ed. (1998).

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The submission of the SDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Twin Rivers Technologies to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material or any other process. Twin Rivers Technologies assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

This Safety Data Sheet complies with OSHA/EPA/EU Standards and Requirements