

MATERIAL SAFETY DATA SHEET

Matreya LLC

Date-Issued: 08/20/2004
MSDS Ref. No: 1071
Date-Revised: 07/27/2007
Revision No: 3

rac-beta-Tocopherol

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: rac-beta-Tocopherol
PRODUCT DESCRIPTION: rac-beta-Tocopherol.....50mg/ml, 1ml hexane
PRODUCT CODE: 1071
MANUFACTURER

24 HR. EMERGENCY TELEPHONE NUMBERS

800-424-9300

Matreya
 168 Tressler Street
 Pleasant Gap, PA 16823
 Ph # 814-359-5060

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>	<u>EINECS#</u>
Hexane	95	110-54-3	203-777-6
5,8-dimethyltolcol	5	148-03-8	

EEC LABEL SYMBOL AND CLASSIFICATION



R11 - Highly flammable. R37/38 - Irritating to respiratory system and skin. R41 - Risk of serious damage to eyes.

EEC Extremely flammable - "F+"

COMMENTS: Source: synthetic

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Liquid

IMMEDIATE CONCERNS: Harmful if inhaled or absorbed through skin. May Cause (target organ or system) damage. (e.g., lung, nervous system, blood disorders, liver, kidney, immune system, cardiovascular system, thyroid, testicular, ovarian, etc.). Extremely flammable liquid and vapor.

POTENTIAL HEALTH EFFECTS

EYES: Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

SKIN: May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

INGESTION: Hazardous in case of ingestion. Aspiration hazard if swallowed- can enter lungs and cause damage.

INHALATION: Hazardous in case of inhalation, (lung irritant).

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

SKIN: Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

INGESTION: Hazardous in case of ingestion. Aspiration hazard if swallowed - can enter lungs and cause damage.

INHALATION: Hazardous in case of inhalation. (lung irritant)

ROUTES OF ENTRY: Skin Eyes Inhalation Ingestion

TARGET ORGAN STATEMENT: Gastrointestinal tract, respiratory tract, skin, central nervous system, eye, lens or cornea.

CANCER STATEMENT: This material is not known to cause cancer in animals or humans.

IRRITANCY: Draize Test (Rabbit): Eye: 10 mg/ time not available. Reaction: Mild.

SENSITIZATION: Not Available

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

INGESTION: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: 1.1 % to 7.5 %

EXTINGUISHING MEDIA: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water in order to prevent pressure build-up, autoignition or explosion.

EXPLOSION HAZARDS: Extremely flammable in presence of open flames, sparks, and static discharge.

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

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dilute with water and mop up, or absorb with inert dry material and place in an appropriate waste disposal container.

LARGE SPILL: Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use with adequate ventilation. Avoid contact with eyes, skin, and clothing.

HANDLING: Keep away from heat, sparks and flame. Use with sufficient ventilation to keep employee exposure below recommended limits.

Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not ingest. Avoid breathing vapors or spray mists.

STORAGE: Store at -20C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: S36/37 - Wear suitable protective clothing and gloves.

RESPIRATORY: Wear an appropriate NIOSH/MSHA approved air purifying respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic

APPEARANCE: liquid

pH: Not Available

VAPOR PRESSURE: Not Available

BOILING POINT: to 68.94°C (156.1°F)

FREEZING POINT: to -139.39°C (-218.9°F)

MELTING POINT: *Not Applicable

SOLUBILITY IN WATER: Partially Soluble

MOLECULAR WEIGHT: 86.17 (for solvent)

MOLE. WT. FORMULA: C₆H₁₄ (for solvent)

COMMENTS:

Molecular Weight for rac-beta-Tocopherol: 417

Molecular Formula for rac-beta-Tocopherol: C₂₈H₄₈O₂

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Reactive with oxidizing agents.

STABILITY: Stable.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides (CO, CO₂)

11. TOXICOLOGICAL INFORMATION

ACUTE

ORAL LD₅₀: 25000 mg/kg (rat)

INHALATION LC₅₀: 48000 ppm 3 hour(s) [rat]

Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation. Hazardous in case of ingestion.

TARGET ORGANS: KIDNEYS, LUNGS, LIVER, HEART, UPPER RESPIRATORY TRACT, SKIN, EYES, CENTRAL NERVOUS

SYSTEM.

MUTAGENICITY: Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

REPRODUCTIVE EFFECTS: Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS)

TERATOGENIC EFFECTS: Classified 3 by European Union.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Do not flush to sewer.

ECOTOXICOLOGICAL INFORMATION: Not Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Specified Technology - Incineration or fuels blending to less than the TCLP standard. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Hexanes

TECHNICAL NAME: Hexanes

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1208

PACKING GROUP: II

NAERG: 128

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Hexanes

TECHNICAL NAME: Hexanes

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1208

PACKING GROUP: II

CANUTEC GUIDE: 128

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Hexanes

TECHNICAL NAME: Hexanes

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1208

PACKING GROUP: II

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Hexanes

TECHNICAL NAME: Hexanes

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1208

PACKING GROUP: II

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



R11 - Highly flammable. R37/38 - Irritating to respiratory system and skin. R41 - Risk of serious damage to eyes.

DOT Flammable Liquid

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: No products were found

313 REPORTABLE INGREDIENTS: n-Hexane

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: No products were found

CLEAN WATER ACT: No products were found

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



R11 - Highly flammable. R37/38 - Irritating to respiratory system and skin. R41 - Risk of serious damage to eyes.

WHMIS Flammable Liquid

WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM): This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

WHMIS CLASS: B-2: Flammable liquid with flash point lower than 37.8C immediatelu D-2B: Material causing other toxic effects (TOXIC).

CANADIAN ENVIRONMENTAL PROTECTION ACT: Ingredient is listed under CEPA on the DSL.

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION



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EEC Extremely flammable - "F+"

EUROPEAN COMMUNITY REGULATORY: R11 - Highly flammable. R37/38 - Irritating to respiratory system and skin. R41 - Risk of serious damage to eyes.

STATE REGULATIONS PA RTK: n-Hexane: (generic environmental hazard)

CALIFORNIA PROPOSITION 65: This product does not contain any chemicals known to the State of California to cause cancer.

16. OTHER INFORMATION

REVISION SUMMARY Revision #: 3 This MSDS replaces the July 27, 2007 MSDS. Any changes in information are as follows:

MANUFACTURER SUPPLEMENTAL NOTES: **Not for drug or diagnostic use.**

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