

Catalog Number: 193459 Revision date: 24-Apr-2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

Catalog Number: 193459

Product name: beta-CAROTENE

Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 tel: 440-337-1200

Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components beta-CAROTENE CAS Number 7235-40-7

Weight % 90 - 100%

ACGIH Exposure Limits: None OSHA Exposure Limits: None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin irritation and/or dermatitis

Principle routes of exposure: Skin Inhalation: May cause irritation of respiratory tract Ingestion: May be harmful if swallowed. Skin contact: May cause allergic skin reaction Eye contact: Avoid contact with eyes

Statements of hazard MAY CAUSE ALLERGIC SKIN REACTION.

Statement of Spill or Leak - ANSI Label Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation: Move to fresh air. Call a physician immediately.
Skin contact: Rinse immediately with plenty of water and seek medical advice
Ingestion: Do not induce vomiting without medical advice.
Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Protection of first-aiders: No information available
Medical conditions operations because because because

Medical conditions aggravated by exposure: None known

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Specific hazards: Unusual hazards: Special protective equipment for firefighters:

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Specific methods: Flash point: Autoignition temperature: NFPA rating: NFPA Health: NFPA Flammability: NFPA Reactivity: Use dry chemical, CO2, water spray or "alcohol" foam Burning produces irritant fumes. None known As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear Water mist may be used to cool closed containers. Not determined Not determined

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Environmental precautions: Methods for cleaning up: Use personal protective equipment. Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Storage:

0°C STORE UNDER NITROGEN PROTECT FROM LIGHT

Handling:

Safe handling advice: Incompatible products: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Oxidising and spontaneously flammable products

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation. PERSONAL PROTECTIVE EQUIPMENT Respiratory protection: Breathing apparatus only if aerosol or dust is formed. Hand protection: Pvc or other plastic material gloves Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect. Eye protection: Safety glasses with side-shields Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Formula: Molecular weight: Melting point/range: Boiling point/range: Density: Catalog Number: 193459 Powder C4OH56 536.9 178-179°C No Data available at this time. No data available Product name: beta-CAROTENE

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Vapor pressure: Evaporation rate: Vapor density: Solubility (in water): Flash point: Autoignition temperature: No data available No data available No data available No data available Not determined Not determined

10. STABILITY AND REACTIVITY

Stability: Polymerization: Hazardous decomposition products:

Materials to avoid: Conditions to avoid: Stable under recommended storage conditions. None under normal processing. Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides. Strong oxidising agents Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

| Product Information Acute toxicity Components beta-CAROTENE | RTECS Number: F10329500 | Selected LD50s and LC50s Not Determined | | |
|---|---|--|--|--|
| Chronic toxicity: | Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness. | | | |
| Local effects: | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. | | | |
| Specific effects: | May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache. | | | |
| Primary irritation: | No data is available on the product itself. | | | |
| Carcinogenic effects: Mutagenic effects: Reproductive toxicity: | No data is available on the product itself. No data is available on the product itself. No data is available on the product itself. | | | |

12. ECOLOGICAL INFORMATION

| Mobility: Bioaccumulation: Ecotoxicity effects: Aquatic toxicity: | | No data available No data available No data available May cause long-term adverse effects in the aquatic environment. | | |
|--|--|---|------------------------------------|--|
| Components | U.S. DOT - Appendix B - Marine Pollutan | U.S. DOT - Appendix B - Severe Marine Pollutants | United Kingdom - The Red List: | |
| beta-CAROTENE | Not Listed | Not Listed | Not Listed | |
| Components | Germany VCI (WGK) | World Health Organization (WHO) - Drinking Water | Ecotoxicity - Fish Species Data | |
| beta-CAROTENE | 1; Fussnote 14 | Not Listed | Not Listed | |
| Components | Ecotoxicity - Freshwater | Ecotoxicity - Microtox Data | Ecotoxicity - Water Flea Data | |
| beta-CAROTENE | Algae Data Not Listed | Not Listed | Not Listed | |

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|---|---|---|--|---|--|--|--|--|
| Components beta-CAROTENE | EPA - ATSDR Priority List Not Listed | t EPA - HPV Challenge Program Chemical List Not Listed | | California - Priority Toxic Pollutants Not Listed | | | | |
| Components beta-CAROTENE | California - Priority Toxic P Not Listed | ollutants | California - Priority Toxic Pollutants Not Listed | | | | | |
| 13. DISPOSAL CONSIDERATIONS | | | | | | | | |
| Waste from residues / unus Contaminated packaging: | ed products: | Federal, State unaltered by u permitted faci waste regulat with this mate | e, and local regulate, may be dis lity or as advise | | | | | |
| 14. TRANSPORT INFORMATION | | | | | | | | |
| UN/Id No: | | Not regulated | | | | | | |
| DOT: Proper shipping name | 9: | Not Regulated | t | | | | | |
| Components beta-CAROTENE | U.S. DOT - Appendix A Table 1 - Reportable Quantities Not Listed | | | | | | | |
| TDG (Canada): WHMIS hazard class: IMDG/IMO | | Non-controlle | d | | | | | |
| IMDG - Hazard Classi | fications | Not Applicable | 9 | | | | | |
| Components | uponents U.S. DOT - Appendix B - Marine Pollutan | | U.S. DOT - Appendix B - Severe Marine | | | | | |
| beta-CAROTENE | | | Pollutants Not Listed | | | | | |
| IMO-labels: | | | | | | | | |

15. REGULATORY INFORMATION

International Inventories

Components beta-CAROTENE Inventory - United States TSCA - Sect. 8(b) Canada DSL Inventory List -Australia (AICS): Inventory - China: Catalog Number: 193459

Present Present Present Present Product name: beta-CAROTENE

| EU EINECS List - Inventory - Japan: Korean KECL: Philippines PICCS: | 230-636-6; C40H56 8-492; 8-496; 9-302 KE-04888 Present | | | | |
|--|--|--|---|--|--|
| U.S. regulations: Components beta-CAROTENE | California Proposition 65 - Not Listed | 5 Massachusetts Right to Know List: Not Listed | New Jersey Right to Know List: Not Listed | Pennsylvania Right to Know List: Not Listed | |
| Components | Florida substance List: | Rhode Island Right to Know List: | Illinois - Toxic Air Contaminants | Connecticut - Hazardous Air Pollutants | |
| beta-CAROTENE | Not Listed | Not Listed | Not Listed | Not Listed | |
| Components beta-CAROTENE | SARA 313 Emission reporting/Toxic Release of Chemicals Not Listed | CERCLA/SARA - Section 302 Extremely Haz Not Listed | None | IARC: None | |
| SARA 313 Notification: | The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 1986 and 40 CFR Part 372. If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska). | | | | |
| State Notification: | The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released. | | | | |
| 16. OTHER INFORMATION | | | | | |

Prepared by: Health & Safety

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End of Safety Data Sheet