

Beta Carotene 30%



Nutraceuticals

Material Safety Data Sheet

Section 1 – Chemical Product and Company Information

Product Name	Beta Carotene 30%
WHMIS Classification	
Manufacturer's Name	Divis Laboratories Ltd
Address	Divis Laboratories Limited Divi Towers, 7-1-77/E/1/303, Dharam Karan Road, Ameerpet, Hyderabad - 500 016 INDIA
Emergency Contact Number	0091-8922 245166
Contact Person	Krishna Prasad

Section 2 – Composition and Information on Ingredients

Chemical Name	CAS #	% by weight	EINECS #	Symbol	R-Phrases
Beta Carotene	7235-40-7	≥ 30%	230-636-6	-NA-	Risk 44
crystalline (1,1'-(3,7,12,16-Tetramethyl-1,3,5,7,9,11,13,15,17-octadecanonaene-1,18-diyl)bis(2,6,6-trimethyl cyclohexene), (all E)-)					
Corn Oil	8001-30-7		231-281-2		
dl- α -Tocopherol	10191-41-0		233-466-0		

Section 3 – Hazards Identification

Physical / Chemical Hazards	Exposure: Inhalation, Ingestion, skin contact, Eye contact
Human and Health Hazards	
Effects and Symptoms	
Eye	Irritation
Skin	Irritation
Chronic effects	No adverse effects known
Ingestion	Expected to be a low ingestion hazard being present in foods



Material Safety Data Sheet

Symptoms of Exposure	Acute Effects: May cause eye irritation. may cause gastrointestinal effects, signs and symptoms may include nausea, vomiting, diarrhea, constipation, cramps, and loss of appetite.
Target Organs	Skin, gastrointestinal system
Other Health Effects	Conditions aggravated ¹ : Liver conditions and/or impaired liver function. Kidney conditions and/or impaired renal function. Exposure to large quantities of this material may cause reversible skin discoloration.

Section 4 – First Aid Measures

First Aid Measures	
Eye Contact	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.
Skin Contact	Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes
Swallowing	If large quantities are swallowed call a physician immediately. Loosen tight clothing such as a collar, tie, or waistband
Ingestion	Get medical aid. Wash mouth out with water
Inhalation	Remove from exposure to fresh air immediately. Get medical aid.

Section 5 – Fire-fighting Measures

Flash Point (liquid)	≥ 200°C > 254°C (Corn oil)
Smoke Point (liquid)	232°C (Corn oil)
Fire Explosion Hazards	When heated to decomposition, there is formation of acrid smoke and respiratory irritant fumes.
Extinguishing Media	Foam powder, carbon dioxide.
Fire Fighting Instructions	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Cool endangered containers with water spray. Use water spray for cooling purposes only (fat explosion hazard).
NFPA Rating	Health : 1; Flammability : 1; Reactivity : 0; Personal protection : E Health : 0; Flammability : 1; Reactivity : 0 (Corn oil)



Section 6 – Accidental Release Measures

Small Spill	Absorb with an inert material and put spilled material in an appropriate waste disposal
Large Spill	Collect spills with inert adsorbent and place into a suitable disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system

Section 7 – Handling and Storage

Handling	Process in closed systems; if possible superimposed by inert gas (eg., nitrogen). Avoid contact with skin and eyes. Take precautionary measures against electrostatic charging.
Storage	Do not store in direct sunlight. Store in a tightly closed container in a cool area protected from light and humidity. Keep under a nitrogen blanket. Do not store at below 0°C.
Packing Materials	Use original container.

Section 8 – Exposure Controls / Personal Protection

Eye Protection	Wear safety goggles
Skin Protection	Wear appropriate protective clothing to prevent skin exposure. Use protective gloves.
Respiratory Protection	Respiratory protection not necessary during normal operations. In case of intense formation of aerosols, wear a NIOSH/MSHA approved respirator
Engineering Controls	Use adequate ventilation to keep airborne concentrations low.

Section 9 – Physical and Chemical Properties

Color	Red-brown color suspension
Odor	None to faint
Physical State	Liquid
Smoke Point	232°C
Flash point	254°C

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Material Safety Data Sheet

Melting Point	< 0°C; suspension is liquid at 0°C.
Density	~ 0.94 g/cm ³ (20°C)
Vapor Pressure	~ 0.0001 mbar (20°C)
Solubility	Insoluble in water Barely soluble in oils and fats (~ 45°C) Soluble in lipophilic solvents

Section 10– Stability and Reactivity

Stability	Stable under normal temperatures and pressures for 30 months.
Conditions to avoid	Warming, exposure to light, exposure to air,
Incompatibility	Atmospheric oxygen, oxidizing agents, strong acids, strong bases, reducing agents, metal salts, compounds rich in oxygen.
Hazardous Polymerization	Will not occur

*Note: In case of extensive air contact (soaked rags, moistened clothes) an exothermic autooxidation is possible. Several cases of spontaneous, violent to explosive decomposition reactions have been described; these incidences mostly occurred after storing small amounts for longer time at very low temperatures (<< 0°C). The most probable cause is the loss of inertisation with subsequent formation of oxidation products that are metastable at low temperatures; hence storage conditions described in section 7 must be fastidiously respected.

Section 11– Toxicological Information

RTECS#	-
Acute Toxicity	LD ₅₀ >20'000 mg/kg (oral, rat) for Beta-Carotene crystalline
Carcinogenic Effects	Not listed by ACGIH, IARC, NIOSH, NTP or OSHA
Mutagenic Effects	Not mutagenic
Reproductive Effects	Not teratogenic

Section 12– Ecological Information

Persistence Potential	Inherently biodegradable
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Section 13– Disposal Information

Method of Disposal	Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber. Observe all federal, state and local environmental regulations
Waste Classification	Not regulated under RCRA

Section 14– Transportation Information

International Transport Regulations	
<u>Land – Road – Railway</u>	
Proper Shipping Name	Beta Carotene 30%
ADR/RDI Class	Not regulated as a hazardous material
<u>Sea</u>	
Proper Shipping Name	Beta Carotene 30%
IMDG Class	Not regulated as a hazardous material
<u>Air</u>	
Proper Shipping Name	Beta Carotene 30%
IATA-DGR Class	Not regulated as a hazardous material
<u>Inland Waterways</u>	
Proper Shipping Name	Beta Carotene 30%

Section 15– Regulatory Information

US Regulations	<p>Hazardous chemical reporting act: Identification # 40CFR370</p> <p>Common name: SARA title 312; EPA, USA – non hazardous All ingredients are on TSCA inventory list There is no defined release quantity of this material given by EPA In the state of New Jersey, all releases, posing a potential danger to the public or environment shall be reported thru the NJDEPE hotline (1-609-292-5560)</p>
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Section 16 – Other Information	
Use	As a colorant (E160a) or as a nutrient with provitamin A activity for food and pharmaceutical preparations
Biological activity	1 I.U. (International Unit) of provitamin A corresponds to the activity of 0.60 µg purest β-Carotene; 1 R.E. (Retinol Equivalent) corresponds to 6 µg of purest β-Carotene.
History	
Date of Issue	06.24.2011
Date of Previous Issue	06.09.2010
Version	HNBC30A 003
Prepared By	Divis Laboratories Limited

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