
Technical Information

CN 600 TG

Omega-3 acid triglycerides (Ph.Eur., 1352)

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1. Introduction

CN 600 TG is an Omega-3-acid triglyceride oil comprised of minimum 60% omega-3 acids and minimum 45% of the primary omega-3 acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). CN 600 TG meets the standards to be used as ingredient in formulated and sterilized clinical nutrition products to be given by parenteral administration.

The product complies with the following compendial names (please refer to the quality & regulatory product information for details):

- Omega-3-acid triglycerides (Ph.Eur.1352)

2. Technical properties

Description

CN 600 TG is a clear, pale yellow liquid oil. It is practically insoluble in water, very soluble in acetone and in heptane, and slightly soluble in ethanol. The product is a hydrophobic solution, not soluble in water so pH is not applicable.

3. Medical information

Therapeutic indication

CN 600 TG is intended for use in preparations for parenteral nutrition supplementation with long chain omega-3-fatty acids, especially EPA and DHA, when oral or enteral administration way for nutrition is impossible, insufficient or contraindicated.

Pharmacokinetics

The distribution of Omega-3 fatty acids after parenteral administration will depend upon the specific formulation. The intrinsic pharmacokinetic properties of Omega-3 fatty acids are similar to other fats regarding distribution, metabolism and elimination.

Following distribution after parenteral administration, there are three main pathways for the metabolism of the omega-3 fatty acids:

- The fatty acids are first transported to the liver where they are incorporated into various categories of lipoproteins and then channeled to the peripheral lipid stores;
- The cell membrane phospholipids are replaced by lipoprotein phospholipids and the fatty acids can then act as precursors for various eicosanoids;
- The majority is oxidized to meet energy requirements.

The concentration of omega-3 acids, EPA and DHA, in the plasma phospholipids corresponds to the EPA and DHA incorporated into the cell membranes.

Pharmacodynamics

The omega-3 fatty acids are essential fatty acids, i.e. they cannot be synthesized in the body, and need to be provided via dietary or other intake. The omega-3 fatty acids EPA and DHA provide numerous health benefits. CN 600 TG contains these essential fatty acids in the form of triglycerides.

CN 600 TG is constituted mainly of the two main Omega-3 fatty acids; EPA and DHA. EPA and DHA are used as a source of energy, incorporated into tissue lipids, or used in eicosanoid synthesis.

DHA is a component of membrane structural lipids, especially of phospholipids in the nervous tissue and the retina. EPA can be transformed to eicosanoids, a group of biologically active substances including prostaglandins, prostacyclins and leukotrienes which participate in the regulation of blood pressure, renal function, blood coagulation, inflammatory and immunological reactions and other functions in tissues.

4. Applications

CN 600 TG is intended for use as active ingredient in parenteral nutrition formulations that shall undergo formulation and a final sterilization process before it is presented as a Finished Product for parenteral use.

5. Handling & Safety

Please refer to the individual material safety data sheet (MSDS) for instructions on safe and proper handling and disposal. Material safety data sheets are sent with every consignment.

When stored below 25 °C and protected from freezing in its original container blanketed with nitrogen, the re-test period is 48 months.

6. Product specification

The current version of the product specification is available from your local BASF sales representative.

7. Regulatory & Quality

CN 600 TG complies with the European Pharmacopeia monograph for Omega-3 acid triglycerides (1352). A Certificate of Suitability (CEP) from EDQM is available; CEP 2017-298.

8. PRD and Article numbers

PRD-No.*	Product name	Article numbers	Packaging
30607326	CN 600 TG	50380683	190 kg steel drum
		50413334	28 kg steel drum
		50380685	0.1 kg aluminum bottle

9. Publications

Publications including scientific posters are available on <http://omega3.basf.com>

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