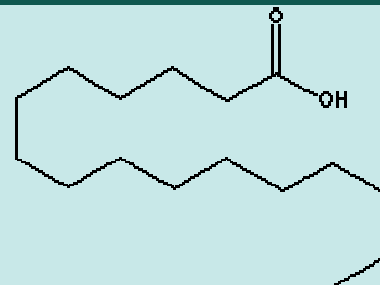


PALMITIC ACID

PRODUCT IDENTIFICATION

CAS NO.	57-10-3
EINECS NO.	200-312-9
FORMULA	$\text{CH}_3(\text{CH}_2)_{14}\text{COOH}$
MOL WT.	256.22
H.S. CODE	
DERIVATION	
TOXICITY	Oral rat LD50: > 10 gm/kg
SYNONYMS	n-Hexadecoic acid; Pentadecanecarboxylic acid; n-Hexadecanoic acid; 1-Pentadecanecarboxylic acid; Cetylic acid; Hexadecylic acid;
CLASSIFICATION	



GENERAL DESCRIPTION

Fatty Acids are aliphatic carboxylic acid with varying hydrocarbon lengths at one end of the chain joined to terminal carboxyl (-COOH) group at the other end. The general formula is $\text{R}-(\text{CH}_2)_n-\text{COOH}$. Fatty acids are predominantly unbranched and those with even numbers of carbon atoms between 12 and 22 carbons long react with glycerol to form lipids (fat-soluble components of living cells) in plants, animals, and microorganisms. Fatty acids all have common names respectively lauric (C12), Myristic (C14), palmitic (C16), stearic (C18), oleic (C18, unsaturated), and linoleic (C18, polyunsaturated) acids. The saturated fatty acids have no solid bonds, while oleic acid is an unsaturated fatty acid has one solid bond (also described as olefinic) and polyunsaturated fatty acids like linolenic acid contain two or more solid bonds. Lauric acid (also called Dodecanoic acid) is the main acid in coconut oil (45 - 50 percent) and palm kernel oil (45 - 55 percent). Nutmeg butter is rich in myristic acid (also called Tetradecanoic acid) which constitutes 60-75 percent of the fatty-acid content. Palmitic acid(also called Hexadecylic acid) constitutes between 20 and 30 percent of most animal fats and is also an important constituent of most vegetable fats (35 - 45 percent of palm oil). Stearic acid (also called Octadecanoic Acid) is nature's most common long-chain fatty acids, derived from animal and vegetable fats. It is widely used as a lubricant and as an additive in industrial preparations. It is used in the manufacture of metallic stearates, pharmaceuticals, soaps, cosmetics, and food packaging. It is also used as a softener, accelerator activator and dispersing agent in rubbers. Oleic acid (systematic chemical name is cis-octadec-9-enoic acid) is the most abundant of the unsaturated fatty acids in nature.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	white solid
MELTING POINT	59 - 63 C
BOILING POINT	350 -351 C
SPECIFIC GRAVITY	0.849 - 0.851
SOLUBILITY IN WATER	insoluble
pH	
VAPOR DENSITY	
AUTOIGNITION	
NFPA RATINGS	Health: 2 ; Flammability: 1; Reactivity: 0
REFRACTIVE INDEX	
FLASH POINT	> 110 C
STABILITY	Stable under ordinary conditions

APPLICATIONS

Rubber & Latex, Plastics, Greases & Lubricants, Food Additives, Pharmaceuticals, Cosmetics &

Toiletries.

SALES SPECIFICATION

APPEARANCE	clear solid
C16 CONTENT	98.0% min
COLOR, APHA	40 max
ACID VALUE	217 - 220
IODINE VALUE	1.5 max
SAP VALUE	208 - 222
TITER	59 - 63
COLOR	2Y 0.2R (5.25" Lovibond Cell)

TRANSPORTATION

PACKING	
HAZARD CLASS	Not regulated
UN NO.	

OTHER INFORMATION

Hazard Symbols: XI, Risk Phrases: 36/37/38, Safety Phrases: 28A-37-45