B. bis[(1R,2R,3S,5S)-2-(methoxycarbonyl)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl] (1*r*,2*c*,3*t*,4*t*)-2,4diphenylcyclobutane-1,3-dicarboxylate (α-truxilline),

C. bis[(1R,2R,3S,5S)-2-(methoxycarbonyl)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl] (1r,2c,3t,4t)-3,4diphenylcyclobutane-1,2-dicarboxylate (β-truxilline).

01/2020:2607



## **COCOA BUTTER**

### Theobromatis oleum

#### DEFINITION

Solid fat obtained from the roasted seeds of Theobroma cacao L.

### **CHARACTERS**

Appearance: yellowish-white, solid mass.

Solubility: freely soluble in boiling anhydrous ethanol and in light petroleum, slightly soluble in ethanol (96 per cent).

Relative density: about 0.895 at 40 °C. Refractive index: about 1.457 at 40 °C.

### **IDENTIFICATION**

A. Melting point (2.2.15): 31 °C to 35 °C.

Introduce 10 g of the substance to be examined into a beaker and melt at 55 °C. Cool in a water-bath to 25 °C and stir continuously until it assumes a paste-like consistency, taking care to avoid the introduction of air bubbles. Place the beaker in a water-bath maintained at 32-33 °C. Continue stirring for about 30 min until the substance reaches the temperature of the water-bath and changes to a liquid cream. Pour into another beaker, and allow to solidify at room temperature for at least 2 h.

Introduce the substance into the capillary tubes and allow to stand at 2-8 °C for at least 48 h.

B. Composition of fatty acids (see Tests).

## **TESTS**

Acid value (2.5.1): maximum 4.0.

Peroxide value (2.5.5, Method A): maximum 3.0.

The starch solution R must be introduced before starting the titration.

Saponification value (2.5.6): 188 to 198, determined on 2.5 g. Appearance: white or almost white, unctuous mass.

#### Alkaline impurities

Solvent mixture. Dilute 15 mL of water R to 500 mL with acetone R and mix. Add 2.5 mL of a 1 g/L solution of bromophenol blue R in ethanol (50 per cent V/V) R and mix again. If the solution is blue or yellow instead of green, neutralise with 0.01 M hydrochloric acid or 0.01 M sodium hydroxide, respectively, to obtain a green solution.

Melt 50 g of the substance to be examined at about 50 °C and mix thoroughly. In a 150 mL conical flask, introduce 10.0 g of the melted substance and add 50 mL of the solvent mixture. Stir vigorously and allow the 2 layers to separate. Not more than 2 mL of 0.01 M hydrochloric acid is required to change the colour of the upper layer to yellow; this coloration must persist after vigorous stirring.

Composition of fatty acids. Gas chromatography (2.4.22, *Method C*) with the following modifications.

Use the mixture of calibrating substances in Table 2.4.22.-1. Column:

material: fused silica, glass or quartz;

-  $size: l = 30 \text{ m}, \emptyset = 0.32 \text{ mm};$ 

stationary phase: macrogol 20 000 R (film thickness  $0.25 \, \mu m$ ).

Carrier gas: helium for chromatography R.

Flow rate: 1.3 mL/min. Split ratio: 1:50. Temperature:

	Time	Temperature
	(min)	(°C)
Column	0 - 15	70 → 205
	15 - 25	205
	25 - 27.5	205 → 230
	27.5 - 50	230
Injection port		250
Detector		250

Detection: flame ionisation.

Injection: 0.5 µL.

Composition of the fatty-acid fraction of the substance:

- lauric acid: maximum 0.5 per cent;
- myristic acid: maximum 0.5 per cent;
- palmitic acid: 24.0 per cent to 31.0 per cent;
- stearic acid: 30.0 per cent to 38.0 per cent;
- *oleic acid*: 31.0 per cent to 38.0 per cent;
- linoleic acid: maximum 4.5 per cent;
- arachidic acid: maximum 1.5 per cent.

## **STORAGE**

In an airtight container, protected from light, at a temperature not exceeding 25 °C.

01/2015:1410



# COCONUT OIL, REFINED

# Cocois oleum raffinatum

[8001-31-8]

### **DEFINITION**

Fatty oil obtained from the dried, solid part of the endosperm of Cocos nucifera L., then refined.

### **CHARACTERS**