

November 11, 1987

GERANYL BUTYRATE

BACKGROUND

Synonyms: Butyric acid, 3,7-dimethyl-2,6-octadienyl ester  
2,6-Octadien-1-ol, 3,7-dimethyl-, butyrate  
trans-3,7-Dimethyl-2,6-octadien-1-yl butyrate  
Geraniol butyrate  
Geranyl n-butyrate  
Geranyl butanoate

CAS No.: 106-29-6

FEMA No.: 2512

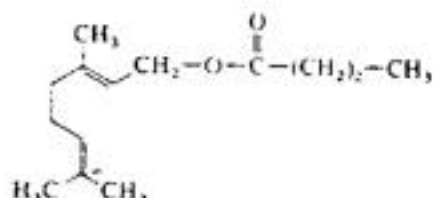
CoE No.: 274

Molecular Wt.: 224.4

Specific Gravity: 0.899-0.904

Boiling Point: 151-153°C at 18 mm Hg  
253°C

Chemical Structure:



Geranyl butyrate is a colorless to pale yellow oily liquid having a rosey-fruit odor (FEMA, 1985; Arctander, 1969). Geranyl butyrate has been found to occur naturally in celery, kumquat, lemon oil, orange oil, and tomatoes (FEMA, 1985). It has also been identified in the essential oil of *Darwinia grandifolia* and lavender oil as well as other essential oils (Opdyke, 1979). Geranyl butyrate may be synthesized by the "esterification of geraniol" (Opdyke, 1979). Based on a 1970 FEMA survey, it is reportedly used in foods at levels ranging from 0.03 to 23 ppm; based on these levels, a possible average daily intake of 4.13 mg was calculated (FEMA, 1985).

REGULATORY STATUS

FEMA: GRAS

FDA: Cleared under 21 CFR 172.515 (synthetic flavoring substances and adjuvants)

CoE: The average daily intake is listed as 0.5 mg/kg body weight for total geraniols (including geranyl acetate, butyrate, formate, hexanoate, isovalerate and propionate) and geranyl esters.

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