



Formula: C<sub>21</sub>H<sub>20</sub>O<sub>6</sub>

MW: 368.39

CAS: 458-37-7

MDL: MFCD00008365

TNP: TNP00001

Curcumin (mixture of curcumin; TURMERIC EXTRACT;  
1,6-Heptadiene-3,5-dione,1,7-bis(4-hydroxy-3-methoxyphenyl)-,(E,E)-;  
5-dione,1,7-bis(4-hydroxy-3-methoxyphenyl)-,(e,e)-6-heptadiene-3;  
5-dione,1,7-bis(4-hydroxy-3-methoxyphenyl)-6-heptadiene-3; 6-Heptadiene-3,5-



LogP: -0.67

LogS: -2.76

Acceptors: 6

Donors: 2

Rotation Bonds: 10

Chiral Centers: 0

N+O: 6

LIPINSKY: 4

IUPAC: (1E,6E)-1,7-bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione

Smiles: C(=CC(CC(/C=Cc1cc(OC)c(cc1)O)=O)=O)/c1cc(OC)c(cc1)O

Specification: Miscellaneous Natural Products; Analytical Chemistry; Antioxidant; Biochemistry;

Indicator (pH); pH Indicators; Colorants; Natural Plant Extract Curcumin Chemical Properties:

mp 183 C density 0.93 vapor density 13 (vs air) refractive index 1.4155-1.4175 storage temp. -20C solubility ethanol: 10 mg/mL form powder Colour Index 75300 color orange Water Solubility Slightly soluble (hot) Merck 14,2673 BRN 2306965 Stability:Stable, but may be light sensitive. Incompatible with strong oxidizing agents. CAS DataBase Reference458-37-7(CAS DataBase Reference) EPA Substance Registry System1,6-Heptadiene-3, 5-dione, 1,7-bis(4-hydroxy-3-methoxyphenyl)-, (1E,6E)-(458-37-7) Safety Information Hazard Codes Xi Risk Statements 36/37/38 Safety Statements 26-36 WGK Germany 2 RTECS MI5230000 Hazard Note Irritant HS Code 29145000 Hazardous Substances Data458-37-7(Hazardous Substances Data) C.I. 75300 English Curcumin Usage And Synthesis Chemical Properties:

orange crystalline powder General DescriptionOrange-yellow needles. Air & Water ReactionsSlightly soluble in hot water . Reactivity ProfileCurcumin is sensitive to light and changes in pH. Curcumin may react with oxidizing materials. Biological ActivityAntitumor, anti-inflammatory and antioxidant agent. Downregulates expression of reactive-oxygen-generating enzymes (cyclooxygenase, lipoxygenase, iNOS), TNF  $\alpha$  , IL-1, IL-6, PKC, EGFR, NF-  $\kappa$  B, I  $\kappa$  B kinase and more. Upregulates expression of PPAR  $\gamma$  , p53, Nrf2. Also displays antimicrobial, antidiabetic neuro- and cardioprotective properties in vivo . Curcumin Raw materialsEtanol-->Acetic anhydride-->Water-->2,4-Pentanedione-->Vanillin-->METHYL CHLORIDE-->1,2-Propanediol-->Butylamine-->Tributyl borate-->TURMERIC 1G [R]-->Curcuma oil-->Curcuma powder