

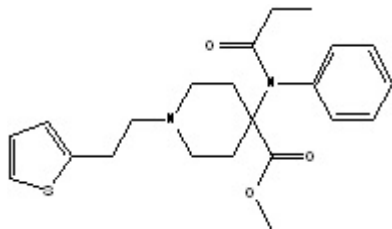
Drug Status Report

Drug: Thiofentanil

Drug Name Status: Thiofentanil is the common name.

Chemical Name: 4-[(1-Oxopropyl)phenylamino]-1-[2-(2-thienyl)ethyl]-4-piperidinecarboxylic acid methyl ester

Chemical structure:



Molecular Formula: C₂₂H₂₈N₂O₃S

CAS-RN: 60771-38-2

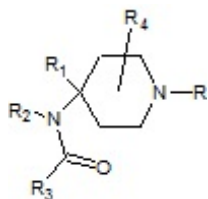
Pharmacological class / Application: Fentanyl

International status:

US: Thiofentanil is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Thiofentanil is used as an analgesic¹ and is not currently listed in the Schedules to the CDSA. A review of the current family of fentanyls revealed that substances included under item 16 of Schedule I to the CDSA all contain the following root structure,



R=ethyl group substituted variously at the 1 and 2 position

R₁=hydrogen, methoxymethyl or carboxylate alkyl ester

R₂=phenyl or substituted phenyl

R₃=alkyl

R₄=hydrogen or alkyl

¹ Li, M *et al.* (1991) Experimental study on the principal effects and dependence potential of thiofentanil, *Acta Pharmaceutica Sinica*, **26**(4), pp.241-245.

and that pharmacological activities of the substances were not considered in the review process.

Thiofentanil contains the root structure common to the fentanyls and is therefore considered to be included under item 16 of Schedule I to the CDSA under the heading “Fentanyls, their salts, derivatives, and analogues and salts of derivatives and analogues, including:”.

Recommendation: Thiofentanil is included under item 16 of Schedule I to the CDSA and is a controlled substance.

July 14th 2010