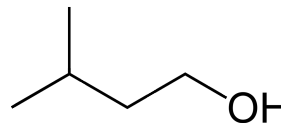


**Table 1:** HHV of Ethanol, *i*-pentanol, and Gasoline

Compound	Ethanol [1]	<i>i</i> -pentanol[1]	Gasoline [2]
HHV [MJ/kg]	29.67	37.73	48.46



**Figure 1:** Skeletal structure of *i*-pentanol

## 0.1 Structure of *i*-Pentanol

*i*-Pentanol (3-methyl-1-butanol) is a five-carbon alcohol whose skeletal structure is shown in Fig. 1. *i*-Pentanol can be produced biologically, and offers several similar advantages as the butanol isomers as compared to ethanol. Table 1 compares the HHV of ethanol, *i*-pentanol, and gasoline.

## 0.2 *i*-Pentanol Experiments