

## Study of Sulfur Free Odorants for LPG

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Regulations city gas and LPG requires an odorant to be added to these gases for leak diction. This leak detection method using human olfactory sense has been spreading and worked effectively as a safety measure for many years. Although there is no such requirement for LPG odorant is in demand as a promising means of leak detection. Currently, mercaptan and sulfide additives among sulfur compound are mixed into city gas and LPG as odorants. The lower sulfur content in LPG makes it environmentally friendly and gives it an enormous advantage over other fossil fuels like gasoline and diesel oil. Sulfur Free Odorants are expected to contribute not only to use LPG more environmentally friendly and alleviate the problems of reforming catalysts in fuel cell batteries, but to make DME-LPG possible to be used in absolute sulfur free. In this study, we focused on development of sulfur free odorants which can be applied as in LPG. Human olfactory perception was used to rank samples according to 9 grades of odor quality and 6 grades of odor intensity on sulfur free odorizing agents.