

## Supercritical carbon dioxide extraction of mineral and gasoline oil contaminants from trench of Cu, Carbon steel substrates

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Supercritical fluid carbon dioxide can be employed as a solvent that are conventionally used for washing contaminants from the surface of metal substrates. The efficiency of SCCO<sub>2</sub> cleaning process depends on process conditions such as pressure, temperature, cleaning time and co-solvent. Cu, Carbon steel were selected as metal substrates that have trench on surface and mineral oil and Teflon<sup>□</sup> lubricating oil were coated on metal trench as contaminants. Within the parameter range studied, cleaning efficiency generally improved when pressure, temperature are increased. When the co-solvent was added, removal efficiency of contaminant was improved. The SCCO<sub>2</sub> cleaning process can remove mineral and Teflon<sup>□</sup> lubricating oil contaminants from trench of Cu, Carbon steel substrates.