



## Discolouration of lubricants containing aminic anti-oxidants

In special cases lubricants formulated with alkylated diphenyl amines, may change color during use. Depending on the conditions the lubricant color can turn greenish or blueish.

These processes are in particular induced or accelerated when the lubricant is exposed to light or the lubricant is contaminated with acidic impurities, e.g. acidic components from the environment.

This discoloration has been investigated and several components with an intensive color have been chemically identified. The chromophoric species have such an intensive color that actually extremely low concentration (ppm) already lead to a significant discoloration of the lubricant.

It has been proven that this color change is only an optical phenomenon and does not adversely affect the lubricant performance or its thermo-oxidative stability.

### Example of an identified chromophore

