



NITROGEN DIOXIDE

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Nitrogen dioxide (abbreviated NO_2) and nitric oxide (abbreviated NO) are considered "NO_x" gases or nitrogen oxides.

Nitrogen dioxide is formed simultaneously with nitric oxide in combustion processes (i.e. diesel engines) and other high temperature operations such as metallurgical furnaces, blast furnaces, plasma furnaces, and kilns. Nitrogen oxides can also be released from nitric acid plants and other types of industrial processes involving the generation and/or use of nitric acid (HNO_3). When NO_x gases combine with moisture in the air, it can form acid compounds. At low temperatures such as those often present in ambient air, nitrogen dioxide can combine with itself (N_2O_4) and has a distinctly reddish-brown color. This compound contributes to the brown haze that is often associated with photochemical smog incidents. Nitrogen dioxide has pungent acid odor and has a relative density of 2.62, (whereas the density of air =1).