Corrosive Acids

- Damage skin, eyes, and respiratory tract
- Only thick butyl rubber gloves can protect from corrosive acids
- Standard first-aid treatment for spills on the skin is irrigation with large quantities of water for 15 min
- Conc. HNO₃ reacts with keratin staining skin yellow, then orange when neutralized

Aqua Regia

3:1 mixture of conc. HCl and HNO $_3$ Mixture decomposes rapidly generating gases HNO $_3$ + 3 HCl \rightarrow NOCl $_{(g)}$ + Cl $_{2(g)}$ + 2 H $_2$ O 2 NOCl $_{(g)}$ \rightarrow 2 NO $_{(g)}$ + Cl $_{2(g)}$ 2 NO $_{(g)}$ + O $_{2(g)}$ \rightarrow 2 NO $_{2(g)}$ Metals are fully oxidized generating soluble chloride salts Pt $_{(s)}$ + 2 HNO $_3$ + 4 HCl \rightarrow PtCl $_4$ + NO $_{2(g)}$ + NO $_{(g)}$ + 3 H $_2$ O Sn $_{(s)}$ + HCl + 2 HNO $_3$ \rightarrow SnCl $_4$ + NO $_{2(g)}$ + NO $_{(g)}$ + 3 H $_2$ O 2 Au $_{(s)}$ + 4 HNO $_3$ + 8 HCl \rightarrow 2 HAuCl $_4$ + 3 NO $_{2(g)}$ + NO $_{(g)}$ + 5 H $_2$ O



Fuming HNO₃ to nitrile gloves https://www.youtube.com/channel/UCFh XFikryT4aFcLkLw2LBLA



Aqua regia added to Zn⁰ powder https://www.youtube.com/channel/UC9XD wNjdmbcC7i NBKhLptQ

