

Air Pollutant:

- SO_3 & SO_4
 - Break down into SO_2
 - Form salt compounds with other metals
 - SO_4 can combine with more things as it is -2 Like Mg which is $2+$
 - SO_3 is only -1 so it combines with less metals. For example to combine with $\text{Mg } 2+$ you would need 2 SO_3

SO_2 :

Anthropogenic sources:

- 99% of it comes from human sources
- Burning fossil fuels
- Naturally produced by forest fires and volcanoes

Effect on environment:

- Reacting with other substances it can create harmful compounds like sulfuric acid
- Combine with water H_2SO_4 sulfuric acid creating acid rain
 - This can erode stone, paint, etc.

Effects on human:

- Safe to eat as it is used as a preservative, but some are sensitive, like elderly and children, to it so it can cause symptoms of asthma.
- Nasty sharp smell

Economic effects:

- Levels of sulfur dioxide are 90% lower than they were in 1960
- Today the UK has the National Air Quality Strategy that regulates the amount of SO_2

Science behind it:

- component of acidic decomposition.
- Low PH hurts human and reptiles

Primary (direct)/secondary (chemical reaction) Pollutant:

- Direct: Not very harmful itself, can cause some respiratory issues in humans (SO_2)
- Secondary: combining with other materials like water it can create acid rain which erodes certain materials (creating SO_3 or SO_4 ex: H_2SO_4)