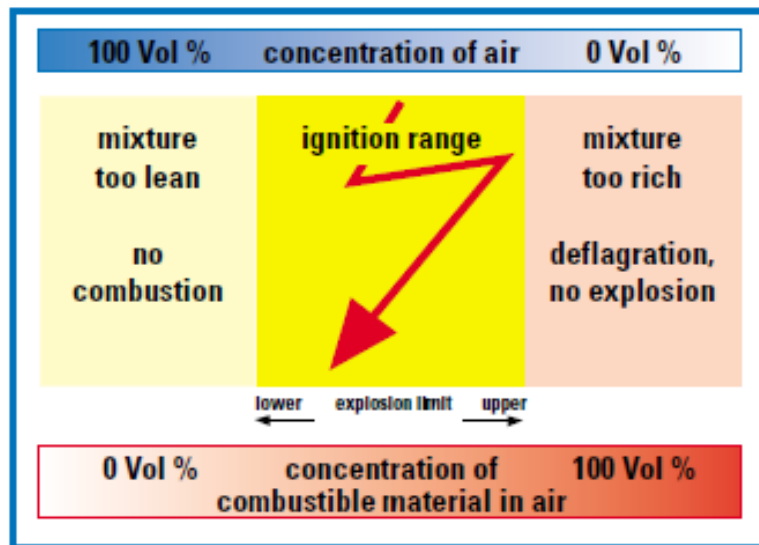


Explosive atmospheres

It is a fact that **gases, vapours and mists** escape during the production, processing, transportation and storage of flammable substances in the chemical and petrochemical industries, as well as in the production of mineral oil and natural gas, in mining and in many other sectors. During many processes, especially in food industries, **combustible dusts** are also created. These flammable gases, vapours, mists, and dusts form an explosive atmosphere with the oxygen in the air. If this atmosphere is ignited, explosions take place, which can result in severe harm to human life and property.



To avoid the danger of explosions, protective specifications in the form of laws, regulations, and standards have been developed in most countries, which are aimed at ensuring that a high level of safety is observed. In Europe (ATEX) and in the US legislation has been setup to minimise explosive atmospheres. As well as for manufacturers or equipment as for users of these equipment.

What type of industry should have equipment which avoids ignition of combustable dust, flammable vapours, gases and mists?

- Flower mills and flower processing companies
- Malt mills and malt processing companies (e.g. Breweries)
- Paint factories
- Companies working with gases or ammonia
- Alcohol (ethanol) producing companies
- Chemical companies producing flammables

What is needed in companies with Ex(plosive) areas?

- They should have an Explosion Protection Document describing:
 - Area classification
 - Proper Ex design
 - Proper Ex equipment (electrical/mechanical) selection
 - Proper installation of Ex equipment
 - Proper Ex initial inspection
 - Proper Ex commissioning

- Proper Ex start-up
- Proper Ex operation
- Proper Ex periodic inspection
- Proper Ex repair service
- Proper Ex change management policy

Sugrema Consultancy NV is experienced in assessments of explosive atmospheres and can support you in mitigating explosive atmospheres.