

EXPLOSIVES HAZARDS

Fact Sheet No 2: Hazard Types

To ensure, during storage and manufacture, that the correct protective measures for health and safety are designed and implemented in the workplace, it is essential to understand the hazards from explosives.

Whilst it may seem obvious that the hazard from the accidental ignition of explosives is an explosion, different types of explosive can, and do, behave differently, when ignited.

The severity of the explosion can also be affected by the conditions of storage or manufacture, for example by confinement during storage or manufacture, or the application of pressure or heat during manufacture.

The hazards from the accidental ignition of different explosives in storage or manufacture are categorised into four types:

Hazard Type 1: an explosive which, as a result of, or as a result of any effect of, the conditions of its storage or process of manufacture, has a mass explosion hazard.

Hazard Type 2: an explosive which, as a result of, or as a result of any effect of, the conditions of its storage or process of manufacture, has a serious projectile hazard but does not have a mass explosion hazard.

Hazard Type 3: an explosive which, as a result of or as a result of any effect of, the conditions of its storage or process of manufacture, has a fire hazard and either minor blast hazard or a minor projectile hazard, or both, but does not have a mass explosion hazard.

Hazard Type 4: an explosive which, or as a result of any effect of, the conditions of its storage or process of manufacture, has a fire or slight explosion hazard, or both, with only local effect.

Hazard Types are different to Hazard Divisions used for the classification of explosives for transport.

These hazard type definitions are used as the basis for the Explosives Licence (issued by the Health and Safety Executive).

The maximum quantity of each Hazard Type of explosives is stated on the individual building schedule of the Explosives Licence. The Hazard Type and maximum quantities are used to determine separation distances to other buildings on and off the site. These distances are designed to protect people in those buildings in the event of an accidental explosion.

The correct designation of Hazard Type, and knowledge and compliance with the conditions of the Explosives Licence are critical to the health and safety of the employees, contractors and the general public.