

CHEMICAL SUBSTANCES

Chemical substances may be present in solid, liquid or gaseous form and may exhibit one or more of the following hazardous properties.

| Old Symbol | New GHS symbol | Hazardous property | Explanation | Example |
|---|---|--------------------------------|--|-------------------------------------|
|  |  | TOXIC | Chemicals that at very low levels cause damage to health. | Acrylamide, cyanide |
| |  | RESPIRATORY SENSITISER | | Animal allergen, latex, isocyanates |
|  |  | CARCINOGENIC | Chemicals that may cause cancer or increase its incidence. | Methyl nitroso urea, formaldehyde |
|  |  | MUTAGENIC | Chemicals that induce heritable genetic defects or increase their incidence. | Ethidium Bromide |
|  |  | SUBSTANCE TOXIC TO RERODUCTION | Chemicals that produce or increase the incidence of non-heritable effects in progeny and/or an impairment in reproductive functions or capacity. | Halothane, ethylene oxide |
|  |  | HARMFUL | Chemicals that may cause damage to health. | Bleach, |
|  |  | IRRITANT/ | Chemicals that may cause inflammation to the skin or other mucous membranes. | Ammonia |
|  |  | CORROSIVE | Chemicals that may destroy living tissue on contact. | Strong acids and bases |
|  |  | EXPLOSIVE | Chemicals that explode | Hexane, Hydrogen |
|  |  | OXIDISING | Chemicals that react exothermically with other chemicals. | Hydrogen peroxide |
|  |  | FLAMMABLE [EXT /HIGHLY] | Chemicals that have low flash points and may catch fire on contact with air or ignition source | di-ethyl ether, acetone, alcohols |
|  |  | DANGEROUS TO ENVIRONMENT | Chemicals that may present an immediate or delayed danger to one or more components of the environment | Mercury |

Before carrying out any process or task involving the use of a chemical substance the line manager or principal investigator must ensure that a risk assessment is carried out to identify the hazardous properties associated with the substance and whether in the circumstances of use they could cause harm to health or infrastructure. Where harm could arise then control measures must be implemented to ensure that risks are reduced

as far as reasonably practicable. The risk assessment must also take into account storage, transport and waste disposal requirements and for more complex procedures should be supplemented with a written standard operating procedure.