Annex I 130.02

Nitrated derivatives of phenols or their counterparts

Definition of causal agent

These substances are dinitro-derivatives of phenol (dinitrophenol, dinitro orthocresol, dinoseb and their salts) and the halogenated derivatives of hydroxybenzonitrile (ioxynil, bromoxynil). All trigger oxidative phosphorylation reactions and this explains their systemic effects.

Main occupational uses and sources of exposure:
Mainly used as herbicides.

Toxic effects

1. Local effects

These substances irritate the skin and ocular and respiratory mucous membranes.
See section on ***Occupationally caused irritation of the skin and mucous membranes*** in Annex I entry nr. 202.

Absorption of these substances by any route results in yellow staining of various tissues e.g. skin, conjunctivae and sclerae.

2. Systemic effects

☐ Acute effect

Hyperthermia with profuse sweating, rapid weight loss.

☐Subacute effects

Gastrointestinal symptoms:
Abdominal pains, vomiting, diarrhoea and in some cases toxic hepatitis.

Exposure criteria:

Minimum intensity of exposure: Severe occupational exposure confirmed, if possible assessed, by:
- History and study of working conditions showing significant exposure to these substances. The possibility of skin absorption should be taken into account.
- and if available
  - Biological monitoring: Identification of the substance or its metabolites in biological blood and urine.
  - Workplace air monitoring

Minimum duration of exposure: A few minutes to a few hours, depending on intensity of exposure.

Maximum latent period:

Acute effects	Two days
Subacute effects:	Seven days