Annex I 128.03
128.04

# Halogenated derivatives of alkylaryl oxides and halogenated derivatives of alkylaryl sulphonates

## Definition of causal agent

***Alkylaryloxides:*** halogenated derivatives of alkylaryl(R-O-Ar) oxides or halogenated ethers of alkyl and aryl. The most important group are the halogenated derivatives of methylphenylether: 2-chloromethylfenylether, 2,4-dichloro-methylphenylether, tri-, tetra-, pentachloromethylphenylether; brominated, iodized, fluorinated derivatives of methylphenylether

***Alkylarylsulphonates:*** the basic compound is benzenesulphonic acid with an alkyl group attached to the other end of the benzene ring. With metal hydroxides their corresponding metal salts are synthesized. Further halogenation produces the halogenated derivatives. Examples: chlorinated polypropylene benzene sulphonate, chlorinated hexane benzene sulphonate.

***Main occupational uses and sources of exposure:***
***Alkylaryl oxides:*** use limited to synthesis in organic chemistry .The most used substance is 2-chloroanisol which is a methoxyphenyl agent.

***Alkylaryl sulphonates:*** some sulphonates are important household items and some are used medically as bactericides and antiseptics, as such, or as part of mixtures.

## Toxic effects

There are no available data on human toxicity implicating alkylaryloxides. However alkylarylsulphonates are known to cause adverse health effects, as discussed below.

## Local effects

### ☐ Irritant effects

The halogenated derivatives of alkylarysulphonates can induce mucous membrane irritation, and in some cases defatting of the skin after repeating exposure leading to irritant dermatitis.

***Exposure criteria:***

*Minimum intensity of exposure:* Occupational exposure confirmed, if possible assessed by history and study of exposure conditions providing evidence of skin contact or inhalation.

*Minimum duration of exposure*: Mucous membrane irritation: seconds to minutes
Irritant Dermatitis: several days

*Maximum latent period*: Mucous membrane irritation: The first manifestations should appear during exposure.

Irritant Dermatitis: The first manifestations should appear during exposure or within 48 hours at the latest.

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

## ☐ Allergic contact dermatitis

Some halogenated derivatives of alkylarylsulphonates can induce allergic contact dermatitis. See section on ***Occupationally caused allergic contact dermatoses*** in Annex I entry nr. 202.

*Minimum intensity of exposure:* Occupational exposure confirmed if possible assessed by history and study of exposure providing evidence of skin contact.
There is no dose/effect relationship for the onset of allergic contact dermatitis.

*Minimum duration of exposure:* Normally several instances of exposure are required to cause sensitisation. In a sensitized person a single subsequent exposure may be enough elicit skin effects.

*Maximum latent period:* Allergic reaction: A few days