TOXIC GASSES IN IMPORT CONTAINERS

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Treatment of containers

ISPM 15
• Methyl bromide or heat treatment
• One time treatment life time protection
Practice:
• fumigation is becoming a standard procedure, especially in south-east Asia
• No labeling
• Other fumigants then Methylbromide often used
Trends

Containers with fumigants exceeding the MAC value

- Methylbromide
- Fosfine
- 1,2-Dichlorethaan
- Chloorpincine
- Sulfuryfluoride
- Totaal

Year:
- 2003
- 2004
- 2005
- 2006
Trends (others)

Containers with solvents exceeding the MAC value

- Benzene
- Toluene
- Xylene (o,m,p)
- Chloro methane
- Tetra chloro methane
- Chlorobenzene
- Hexa chlor butadiene
- TOTAL
Trend:

The number of substances used increases.
The concentration in import containers increases.

Indication: benzene and toluene used to prevent moulding (shoes).

Goods absorb fumigants/solvents and release may continue at consumers' home.
### Results (extra) investigated containers 2007

57% of the containers contained toxic gases, 16% above mac-value

<table>
<thead>
<tr>
<th>Product-group</th>
<th>Investigated containers</th>
<th>Methyl-bromide</th>
<th>1,2-di-chloor-ethaan</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Carbon-disulfide</th>
<th>Formaldehyde</th>
<th>Chloropicrine</th>
<th>Methylenechloride</th>
<th>Fosfine</th>
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</table>
example concentrations 2007/2008

- Methylbromide : 750 ppm
- Fosfine       : 1100 ppm
- 1,2 dichloroethane: 450 ppm
- Benzene      : 800 ppm
- Toluene      : 110000 ppm
- Formaldehyde : 24 ppm
Environment

Methylbromide and 1,2 dichloroethane are ozone depleting gases. 25% of the worldwide use of methylbromide is used for container fumigations. ca. 500 mT methylbromide is used each year for containers imported in the harbors of the Netherlands.
Thank you