SPECIAL WASTE REGULATIONS 1996
SPECIAL WASTE ADVISORY NOTE

MAN MADE MINERAL FIBRES (MMMF) Ref: SWAN/03

Background

Man-made mineral fibres group together both **refractory ceramic fibres** (RCF) and **mineral** (rock and glass) **wools**. RCFs are used as industrial linings where there are high temperatures, for instance in furnace and kiln insulation or in roof sheets, ductwork, joints and gaskets. Mineral wool is common as insulating material in buildings and in certain other uses.

Many are used as replacement materials to asbestos. Glass fibres are also used in reinforcing plastics but are not considered hazardous. Reference to hazardous in this note also means special waste.

Summary

The classification of MMMFs as hazardous depends on how respirable the fibres are. The fibres are considered as 'dangerous substances'. This assessment need only be relevant to RCFs because the evidence of harm from mineral wool is less substantive. *However, where data for any MMMF is inconclusive, the precautionary principle should apply.*

Waste Classification

Both types of MMMF are in the Approved Supply List (ASL[1]) with the classification of **R38**[2] which would normally be hazardous by irritancy (**H4**). However this classification need not apply for special waste as it reflects the transient effects of the fibres on the skin rather than a persistent, chemical irritancy.

RCFs are also listed with Risk Phrase **R49**[2] which is carcinogenic category 2 (**H7**) at more than 0.1%. However, this classification 'need not apply to fibres with a length weighted geometric mean diameter less two standard errors greater than 6 micron'. If the waste contains fibres at a concentration more than 0.1%, it is not hazardous if specified data or tests confirm the fibres are coarser than 6 micron (6μm).

There is more than one possible entry in the EWC for RCFs depending on their application. These are Chapter **16 11** or **17 06**: The former is for linings and refractory bricks etc in either metallurgical or non-metallurgical processes. The latter is for other insulation uses or arisings in construction wastes. Both are assessed as mirror entries, i.e. on the presence of dangerous substances (the fibres) at threshold levels. Note that any of these wastes may be contaminated with other dangerous substances arising from the process or construction activity, which should be considered in the waste's classification.

Mineral wool is a **R40**[2] (carcinogenic category 3) substance above 1%. However the ASL applies the same rule on fibre characteristics as above and the presumption can be made that it is non-hazardous unless contaminated with other hazardous wastes.

Notes

[1] ASL (provides simple information for the labelling of products with chemicals that could be dangerous to human health or the environment) can be found online on the NCEC website at: http://www.the-ncec.com/cselite/index.html **WM2 uses the most recent version of the ASL to ensure that classification of waste reflects current understanding on dangerous substances**

[2] **Risk phrases**
R38 – irritating to the skin
R40 – limited evidence of a carcinogenic effect
R49 – may cause cancer by inhalation