



AIOH SUBMISSION

Comments on the Comcare Proposed Review of Code on Synthetic Mineral Fibres

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Prepared by
AIOH Exposure Standards Committee

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AUTHORISATION

This response has been prepared by the AIOH Exposure Standards Committee and authorised by the AIOH Council.

Australian Institute of Occupational Hygienists Inc (AIOH)

The Australian Institute of Occupational Hygienists Inc. (AIOH) is the association that represents professional occupational hygienists in Australia. Occupational hygiene is the science and art of anticipation, recognition, evaluation and control of hazards in the workplace and the environment. Occupational hygienists specialise in the assessment and control of:

- Chemical hazards (including dusts such as silica, carcinogens such as arsenic, fibrous dusts such as asbestos, gases such as chlorine, irritants such as ammonia and organic vapours such as petroleum hydrocarbons);
- Physical hazards (heat and cold, noise, vibration, ionising radiation, lasers, microwave radiation, radiofrequency radiation, ultra-violet light, visible light); and
- Biological hazards (bacteria, endotoxins, fungi, viruses, zoonoses).

Therefore the AIOH has a keen interest in the potential for workplace exposures to synthetic mineral fibres, as its members are the professionals most likely to be asked to identify associated hazards and assess any exposure risks.

The Institute was formed in 1979 and incorporated in 1988. An elected governing Council, comprising the President, President Elect, Secretary, Treasurer and three Councillors, manages the affairs of the Institute. The AIOH is a member of the International Occupational Hygiene Association (IOHA).

The overall objective of the Institute is to help ensure that workplace health hazards are eliminated or controlled. It seeks to achieve this by:

- Promoting the profession of occupational hygiene in industry, government and the general community.
- Improving the practice of occupational hygiene and the knowledge, competence and standing of its practitioners. To this end, the Institute has developed a certification scheme, which was approved by IOHA in May 2006.
- Providing a forum for the exchange of occupational hygiene information and ideas.
- Promoting the application of occupational hygiene principles to improve and maintain a safe and healthy working environment for all.
- Representing the profession nationally and internationally.

More information is available at our website – <http://www.aioh.org.au>.

Consultation with AIOH Members

AIOH activities are managed through committees drawn from hygienists nationally. This submission has been prepared through the AIOH Exposure Standards Committee with comment offered to AIOH members generally and active consultation with particular members selected for their known interest and expertise in this area. The Chair of the Exposure Standards Committee initiates, coordinates, reviews and assembles comment into a submission that is passed on to Council or the President for approval. Various AIOH Exposure Standards Committee and other members were contributors in the development of this submission.

AIOH Exposure Standards Committee

Current membership of the AIOH Exposure Standards committee.

Ian Firth (Canada) (Chairperson)
Robert Golec (VIC)
Kevin Hedges (QLD)
Dennis Henry (NSW)
Clive Paige (QLD)
Alan Rogers (NSW)
John Winters (NSW)

Twenty-ninth AIOH Council

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| President: | Sharann Johnson (VIC) |
| Secretary: | Gavin Irving (QLD) |
| Treasurer: | Gary Rhyder (NSW) |
| President Elect: | Charles Steer (SA) |
| Councillors: | Kevin Hedges (QLD) David Chambers (TAS) Barry Chesson (WA) |

Comments and Suggested Changes to Code, Part 13 SMF, Amended Version

As a general comment, the AIOH supports the proposed amendments to the Comcare Occupational Health and Safety Code of Practice 2008 – Part 13 Synthetic Mineral Fibres. The following further suggested changes are however proposed:

| Paragraph number | Comment | Proposed new text |
|-------------------------|---|--|
| 13.1 | <p>The industry and the type of SMF used in Australia has changed considerably since the National Code of Practice for the Safe Use of SMF [NOHSC:2006(1990)] was written in 1990. Although there are considerable <i>in-situ</i> amounts of the old type of SMF in buildings, almost all new SMF used in Australia today is of the low biopersistence type and has been tested against the criteria listed in Note Q. Hence unless the users of SMF understand what Note Q means then there is certain to be considerable confusion between the various parties. Unfortunately the NOHSC/ASCC listing of Note Q on page 3 of the list of Designated Hazardous Substances: Abbreviations and Notations, does not mention that it applies to SMF or that it is derived from EC legislation. Further the listing of Synthetic Mineral Fibres in NOHSC 10005-April 1999 and further HSIS listings, do not indicate that Note Q may apply to some SMF products. In fact Note Q has not been applied to any substance or substances in the entire list of hazardous substances under the HSIS system (either they forgot or did not understand what it meant). The Comcare SMF Code needs to clarify this issue along the lines indicated in the</p> | <p>Note: Please refer to the Hazardous Substances Information System (HSIS) http://hsis.ascc.gov.au/Default.aspx and the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 (2004) 3rd edition]) for further information regarding the classification of SMF as hazardous substances. <i>New generation low bio-persistent types of SMF may meet additional requirements listed within the Hazardous Substances Information System (HSIS). HSIS contains note Q (criteria for exempting synthetic mineral fibres from being classified as carcinogenic) which is adopted from European Directive note Q. Check for the relevant information in the MSDS and on the label.</i></p> |

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| | <p>ISSUES section 6. See yellow highlight for suggested additional text.</p> | |
| <p>13.5</p> | <p>It is certainly true that IARC have concluded that for continuous glass filament there is inadequate evidence in humans and in experimental animals for carcinogenicity, while for glass wool and rock (stone) wool / slag wool there is inadequate evidence in humans and limited evidence in experimental animals for carcinogenicity. We suggest you should also mention that IARC also found that there is inadequate evidence in experimental animals for the carcinogenicity of certain newly developed, less biopersistent fibres including the alkaline earth silicate (eg Superwool X-607™) wool, the high-alumina low-silica (HT) wool, and fibres A, C, F and G.</p> | <p>After “ slag wool are classified as 3 (not classifiable as to their carcinogenicity to humans).” <i>Fibres designed to be less biopersistent, such as the alkaline earth silicate or high alumina, low-silica wools, were not classified by IARC, but such fibres that have been tested appear to have low carcinogenic potential in experimental animals. As such they have been granted exemption if they meet the test requirements laid out in Note Q.</i></p> |
| <p>DEFINITIONS</p> | <p>Additions required, as yellow highlighted.</p> | <p><i>‘Biopersistence’ – a measure of the degree of retention of the fibres in the lung over time.</i></p> <p><i>‘Note Q’ – a testing system for low biopersistence SMF so as to determine compliance as a non-carcinogen (List of Designated Hazardous Substances [NOHSC:10005(1999 & 2004)], and EC Directive 97/69/EC).</i></p> |

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| 13.18 | <p>Incorrect definition of the exposure standard meaning and incorrect use of terminology. While the current national standard refers to <i>inspirable</i> dust, the correct terminology for this is now <i>inhalable</i> dust, in compliance with the ISO convention on particle size fraction definitions for health-related sampling (ISO 7708:1995), which is what AS3640 is based upon.</p> | <p>The National Standard for SMF [NOHSC:1004 (1990)] is a <i>time weighted average concentration maximum</i> of 0.5 respirable fibres per millilitre of air (f/mL) (the respirable standard). In situations where almost all the airborne material is fibrous, it is 2 mg/m³ time-weighted average of <i>inhalable</i> dust (the <i>inhalable</i> standard). The <i>inhalable</i> standard is not to take precedence over the respirable standard.</p> |
| After 13.28 | <p>Under the section titled “Control the removal of SMF products”, there should be mention of the potential for bulk ceramic fibre material to become embrittled because of sustained high temperatures (> 900°C, typically over months), and that silicate material in the ceramic fibres, when maintained at these sustained high temperatures, can convert into cristobalite.</p> | <p>13.29 <i>Bulk ceramic fibre material can become embrittled because of sustained high temperatures (> 900°C, typically over months). The silicate material in the ceramic fibres, when maintained at these sustained high temperatures, can convert into cristobalite. Prolonged exposure to cristobalite may lead to silicosis. Where embrittled ceramic fibre must be removed, particularly from confined spaces (eg. from within boilers or kilns), stringent dust control respiratory protection and other personal protective equipment should be applied.</i></p> |