VAPAC Technical
Managers Network

Mitigating The Environmental and Health Impacts of Micro Plastics in Live Entertainment

VAPAC
Victorian
Association
of Performing
Arts Centres

Victorian Association of Performing Arts Centres
www.vapac.org.au

Registered # A0005511W
ABN: 82 578 774 451

VAPAC acknowledges the Traditional Custodians of the lands where we live and work and upon which our member venues are situated across Victoria. We pay our respects to Aboriginal & Torres Strait Islander Elders past and present. Always was, always will be.

Mitigating The Environmental and Health Impacts of Micro Plastics in Live Entertainment

This document is to provide information about the use of glitter in performing arts venues and its possible effects it may have on the staff, volunteers and the public that work or attend these venues. The Victorian Association of Performing Arts Centres (VAPAC) Technical Managers Network has recommended putting a ban on all glitter products 5mm or less within their venues.

It's long been known of the respiratory health effects Asbestos has had in the community and more recently silica dust. Glitter is a microplastic, defined as small plastic particles of 5 millimeters or less, that are bad for the environment but more importantly they are bad for human and animal health. Glitter is everywhere. Makeup, nail polish, holiday decorations, greeting cards, gift bags. It's sparkly, it's festive, it shouts fun and celebration.

Glitter is made of the common plastics PET or PVC and coated with aluminum or other synthetic materials to make it reflective. The chemical substances used during the production of glitter have been found to adversely affect human health

Microplastics have been linked to inflammation, infertility, and cancer in animals. Recent studies have found that plastic particles accumulate in the human brain and tissue, leading to inflammation, genotoxicity, oxidative stress, apoptosis, and necrosis, which are all associated with cardiovascular diseases, cancers, and autoimmune conditions, environmental health, contaminating our soil, air, water and food.

in October 2023, the European Union announced its ban on all nonbiodegradable plastic glitter. Beginning in 2027, the region also plans to halt the production and sales of rinse-off cosmetics that contain loose plastic glitter, with leave-on products following suit starting in 2029.

How does glitter impact our venues? Glitter in all its forms either falls off or comes off during contact. It lands on venue surfaces like the stage, curtains, walls, clothes, skin and inhaled/ingested. Stages are swept. Some of the glitter is collected and disposed during this process but it can also stir it up into the air once more. Curtains are moved and the process continues. Once glitter is in the venue it is very hard to remove it. Staff are exposed to its effects daily as well as other users of the venue. Glitter could also have an effect in electrical equipment, causing short circuiting or overheating equipment.

As Venues are under the OHS Act of 2004, we have a duty of care to protect staff, volunteers and the public from the risk that glitter imposes on the users of our facilities and as such recommend that the use of glitter of 5mm or less is not to be used due to it being toxic to humans.

Reference & Resource List

- M Morris (1 December 2017) 'Experts call for glitter microplastics ban', *ABC News Australia*.

- Quiroga VH, Zanetta A, (2022) 'Acute respiratory distress from ingestion of glitter powder in a 15-month-old child: an endoscopic emergency', *National Library of Medicine - Archivos argentinos de pediatria,* 120(1), e29–e33, https://doi.org/10.5546/aap.2022.e29. https://pubmed.ncbi.nlm.nih.gov/35068127/

- Lee, Y., Cho, J., Sohn, J., & Kim, C (2023) 'Health Effects of Microplastic Exposures: Current Issues and Perspectives in South Korea', *Yonsei medical journal*, 64(5), 301–308, https://doi.org/10.3349/ymj.2023.0048 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10151227/

- Abessa DMS., Albanit LF, Moura PHP, Nogueira VS, Santana FT, Fagundes K, Ueda M, Muller OPO, & Cesar-Ribeiro C. (2023) 'Glow before Darkness: Toxicity of Glitter Particles to Marine Invertebrates', *Toxics,* 11(7), 617, https://doi.org/10.3390/toxics11070617 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10385617/

- Mahrood K (23 December 2023) 'How decorative glitter contributes to microplastic pollution', *PBS NewsHour* .

- Mcinnes W (2 December 2017) 'Ban the glitter: Scientists calling for an end to microplastics', *Sydney Morning Herald.*

- Reeve-Parker N (27 June 2023) 'A microplastic in disguise: Why glitter is problematic', *University of Washington Human Resources.*

- Greaves K (8 November 2023) 'What does the European Union's glitter ban mean for the US beauty market?', *Vogue*.

VAPAC

Victorian
Association
of Performing
Arts Centres