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ASSESSMENT AND PREVENTION OF INFANT SLEEP ENVIRONMENT HAZARDS

D Stool, G Emerson*, J Reilly, W Fox, T Shaffer *Correspondence: Intertek, Phoenix Yard 69 King's Cross Road, London WC1X 9LN, UK*

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Assessment and prevention of infant sleep environment hazards. Many children sleep in consumer product sleep environments, some intended for this purpose, some that are not. Infants are not just tiny adults. Greater airway compliance, shallower respiration, and cartilaginous bony structures

increase the potential for airway compromise. Caregivers have a high degree of expectation that all of these consumer products are safe for their infants as sleep environments, therefore vigilance is generally low. Risk of injury equals hazard multiplied by exposure. To manage this risk hazard must be pushed as close as possible to zero. Intertek has conducted research in conjunction with leading paediatric pulmonologists and respiratory physiologists from the University of Pennsylvania and the Alfred I DuPont Institute to develop an artificial respiratory system and infant interface equipped with pressure sensors that allow products to be evaluated for their potential to cause a variety of airway obstruction injuries. There are a wide variety of design strategies to reduce the hazard of strangulation in infant sleep environments. Generally, if designers are made aware of the potential hazard they can devise a large number of effective solutions. Changes to public policy regarding consumer product safety are being promoted at both the state and federal level. These changes are likely to require increasingly stringent evaluation of products, especially those that are intended to be in contact with infants. Consumers who are caregivers for infants are intently motivated to be certain that the products that they buy have the lowest possible level of hazard.