

Pressurised dispensers rupture due to heat exposure

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What happened?

A package, containing gas bags with pressurised aerosol dispensers attached, was left in direct sun on a bench being prepared for the loading of explosives. The heat resulted in 2 pressurized dispensers rupturing then breaking through the packaging and landing a metre from the package. The aerosol cans involved in this incident have a maximum temperature exposure limit of 50°C (refer Section 4.2 of Australian Standard 2278.1-2008 metal aerosol dispensers of capacity 50mL to 1000mL inclusive). The uncontrolled energy from such events could create a hazard to personnel and sensitive explosives.

Recommendations

1. Selection of gas bags must consider all potential risks in relation to storage on the bench, and handling and use in blast holes.
2. Prevent pressurised dispenser exposure to temperatures above the maximum temperature limit prescribed for the product in the Safety Data Sheet.
3. Limit pressurised aerosol dispenser exposure to direct sunlight where the actual heat is higher than the ambient temperature.
4. Consider the effects of radiant heat when leaving pressurised aerosol dispensers in exposed hot conditions for extended periods of time.
5. Ensure staff are made aware of the hazards associated with pressurised aerosol dispensers and effectively implement controls to manage risks.
6. Review the Safety Management System to ensure pressurised aerosol dispensers are handled within the specifications detailed in the Safety Data Sheet and other explosives and accessories are not subjected to heat outside their handling specification.
7. Supervision and management must undertake verification of controls on a regular basis.



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