



AEROSPACE INFORMATION REPORT

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Magnesium Alloys in Aircraft Seats - Developments in Magnesium Alloy Flammability Testing

RATIONALE

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INTRODUCTION

In the interest of reducing the weight of civil and commercial aircraft for fuel economy and environmental reasons, aircraft seat producers would like to take advantage of the potential weight reduction benefits of magnesium alloys in seat structures. Current SAE standards and related FAA requirements do not allow magnesium for use in aircraft seat construction. This restriction of magnesium is presumed to be related to flammability and the possibility of an increased hazard level in an inflight or post-crash fire situation. Flammability testing by the FAA and others has demonstrated that the hazard level is not increased when magnesium alloys with certain chemistries are employed in this application. In order to consider the removal of the restrictions contained in AS8049, this report is offered as documentation of these evaluations and conclusions.

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