

# MATERIAL HEALTH & SAFETY DATA SHEET

NUMBER 3 ISSUE 2 DATE 04.07.12

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME	DMS 692 ANTIOXIDANT PAINT
COMPANY ADDRESS	MEGGITT AIRCRAFT BRAKING SYSTEMS HOLBROOK LANE COVENTRY
TELEPHONE NUMBER	CV6 4AA
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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a two-part antioxidant paint. The second part is Industrial Methylated Spirit (IMS) which should be supplied locally.

This MSDS covers the first part, which comprises the following components:

Boron powder

Phenolic Resin (phenol formaldehyde resin with hexamethylenetetramine)

Di-boron trioxide

## 3. HAZARDS IDENTIFICATION

**Mains Hazards:** Harmful in contact with skin and if swallowed.

**Health Effects – Eyes:** Material may cause irritation.

**Health Effects – Skin:** Material may cause irritation. Material may cause sensitisation by inhalation and skin contact. Repeated or prolonged contact may lead to dermatitis.

## 4. FIRST AID MEASURES

**MOVE THE EXPOSED PERSON TO AN AREA WHERE FURTHER EXPOSURE WILL NOT OCCUR. IN CASES WHERE THE EXPOSURE ROUTE IS INHALATION MOVE THE PERSON TO FRESH AIR AT ONCE.**

MAIN HAZARDS	Highly flammable. Harmful in contact with skin, by inhalation and if swallowed.
HEALTH EFFECTS – EYES	Liquid may cause irritation. Vapour may cause conjunctival irritation.
HEALTH EFFECTS – SKIN	Material may cause irritation. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
HEALTH EFFECTS – INGESTION	Swallowing may cause the following: severe irritation of mouth, throat and digestive tract, depression of central nervous system. Aspiration during swallowing or vomiting may severely damage the lungs.
HEALTH EFFECTS – INHALATION	Exposure to vapour may have the following effect: irritation of nose, throat and respiratory tract. Exposure to vapour at high concentrations may depress the central nervous system.
<b>IN ALL CASES WHERE SYMPTOMS ARE SEVERE, SEEK MEDICAL ATTENTION IMMEDIATELY</b>	

## 5 FIRE FIGHTING MEASURES

The product itself is not considered to be flammable, but if involved in a fire, toxic fumes from decomposition may result. Care should be taken since dusts have the capacity for self-ignition and explosion. There is currently no information regarding ignition temperature of this product.

**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media:** Do not use water jet.

**Special Hazards:** This product may emit toxic fumes upon decomposition.

**Protective Equipment:** Full protective clothing and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

At all times spillage should be removed by vacuum cleaner. Collected material should be transferred to a covered salvage container for appropriate disposal. Compressed air lines should not be used to remove any spillage. Appropriate protective equipment, as given in Section 8, should be used by persons engaged in clean-up operations.

## 7. HANDLING & STORAGE

HANDLING	Appropriate protective equipment, as given in section 8 should be worn. Avoid inhaling dust. The usual precautions for handling chemicals should be observed. Employ well ventilated areas and if necessary exhaust ventilation when handling or transferring the material. Take precautionary measures against static discharges.
STORAGE	No special arrangements are necessary, other than to keep containers in a cool, dry place avoiding extremes of temperature.

## 8. EXPOSURE CONTROL & PERSONAL PROTECTION

### Occupational Exposure Standards (OES) LTEL (8-hr TWA)

Boron	Not assigned
Phenol	5 ppm
Cresol	5 ppm
Di-boron oxide	10 mg/m <sup>3</sup>

### Maximum Exposure Limit (MEL) LTEL (8-hr TWA)

Formaldehyde	2 ppm
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Exposure Control: Engineering controls should be provided, whenever practicable to keep airborne concentrations below the specific occupational exposure limit (OEL).

Personal Protection Cartridge/filter type personal respirators can be used as additional control, but must be mandatory in the unlikely event that exposure below the specific OEL's cannot be guaranteed by other means. Suitable safety glasses or goggles to EN122 standard and gloves or barrier creams are also recommended where exposure is likely.

Hygiene Smoking, eating or drinking must not be allowed within work areas.

## 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE	Brown powder
SPECIFIC GRAVITY	Not currently available
MELTING POINT	Not currently available
SOLUBILITY	Not currently available

## 10. STABILITY & REACTIVITY

This product is stable under normal conditions.  
Keep away from sources of ignition.  
Avoid contact with halogens and alkali metals.  
Avoid temperatures in excess of 25°C.

## 11. TOXICOLOGICAL INFORMATION

Some components are classified under the Chemicals (Hazard Information and Packaging) Regulations 1993.  
Boron is classified under the above regulations as harmful, having an LD50 (oral, rat) of 650mg/kg.  
The phenolic resin is produced from components that are classified under the above regulations as toxic. Although some absorption of unreacted phenol may occur, this is unlikely. The amount of freed phenol is expected to be less than 1.5%. Unreacted cresol is unlikely to remain within the resin.  
Although formaldehyde is classified as a Category C carcinogen, the amount likely to be present is insignificant.  
None of the classified components is likely to be present in the product in significant amounts.  
The product is an eye irritant and is irritating to the skin. Prolonged skin contact may cause dermatitis in the case of sensitive persons.

## 12. ECOLOGICAL INFORMATION

It is unlikely that the material will cause ecological damage, but the following need to be considered:

Phenolic resins are only slightly toxic to aquatic species.

Since boron is practically insoluble in water, it is separated in almost any filtration and sedimentation process.

Di-boron trioxide hydrolyses to boric acid, which is toxic for aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

Surplus product should be classified in accordance with regulations made under Directive 78/319/E95.

Disposal should be in accordance with local or national legislation.

## 14. TRANSPORT INFORMATION

There are no special measures which need to be observed with regard to transportation. The product is not classified for conveyance purposes.
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## 15. REGULATORY INFORMATION

Labelling Information	In accordance with Annex 1 of directive 67/548/EEC and its amendments and adaptations
Hazard description	Harmful.
R phrases	R21/22: Harmful in contact with skin and if swallowed. R35/38. Irritating to eyes and skin. R42/43. May cause sensitisation by inhalation and skin contact.
S phrases	S22: do not breathe dust S28. After contact with skin, wash immediately with plenty of water. S37: wear suitable gloves.
THE DATA GIVEN IN THIS DATA SHEET IS BASED ON CURRENT KNOWLEDGE AND EXPERIENCE.	

## 16. OTHER INFORMATION

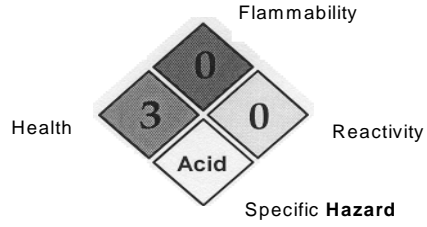
**These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is thereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.**

### Abbreviations:

**ACGIH = American Conference of Governmental Industrial Hygienists**  
**CAS = Chemical Abstracts Service**  
**CERCLA = Comprehensive Environmental Response, Compensation and Liability Act**  
**EPA = Environmental Protection Agency**  
**HMIS = Hazardous Material Information System**  
**IARC = International Agency for Research on Cancer**  
**IATA = International Air Transport Association**  
**NA = not applicable**  
**NO = not determined**  
**NE = none established**  
**NFPA = National Fire Protection Association**  
**NIOSH = National Institute for Occupational Safety and Health**  
**NTP = National Toxicology Program**  
**OSHA = Occupational Safety and Health Administration**  
**PEL = permissible exposure limit**  
**ppm = parts per million**  
**SARA = Superfund Amendments and Reauthorization Act**  
**STEL = short term exposure limit**  
**TL V = threshold limit value**  
**TSCA = Toxic Substances Control Act**  
**TWA = time weighted average**

National Fire Protection Association  
(U.S.A.):

Health Hazard	3
Fire Hazard	0
Reactivity	1
Personal Protection	C



Protective Equipment:



Safety Glasses (EN122)

Coat

Gloves