

# MATERIAL HEALTH & SAFETY DATA SHEET

NUMBER 9 ISSUE 3 DATE: 04.07.12

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

<b>TRADE NAME</b>	<b>DMS 744/745 ANTIOXIDANT PAINTS</b>
<b>CHEMICAL NAME</b>	
<b>COMPANY ADDRESS</b>	<b>MEGGITT AIRCRAFT BRAKING SYSTEMS HOLBROOK LANE COVENTRY CV6 4AA</b>
<b>TELEPHONE NUMBER</b>	<b>024 7666 6655</b>
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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

The product is an antioxidant paint comprising the following components:

Boron powder CAS – 744-42-8

Proprietary inorganic phosphate containing :-

Acetic acid CAS 64-19-17

Ammonium nitrate CAS 6484-52-2

Water CAS 7732-18-5

## 3. HAZARDS IDENTIFICATION

<b>MAIN HAZARDS</b>	<b>Poison – may be fatal if swallowed</b>
<b>HEALTH EFFECTS – EYES</b>	<b>May cause severe burns</b>
<b>HEALTH EFFECTS – SKIN</b>	<b>May cause severe burns</b>
<b>HEALTH EFFECTS – INGESTION</b>	<b>Poison – may be fatal if swallowed</b>
<b>HEALTH EFFECTS – INHALATION</b>	<b>If inhaled will cause difficulty in breathing</b>

## 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.

<b>SKIN CONTACT</b>	<b>May cause severe burns. Remove contaminated clothing. Wash affected area with soap and water. Neutralise exposed skin with a dilute solution of sodium carbonate. Seek medical attention if irritation persists. Wash contaminated clothing before reusing.</b>
<b>EYE CONTACT</b>	<b>May cause severe burns. Check for and remove any contact lenses. Immediately flush eyes thoroughly with water for at least 15 minutes. Seek prompt medical attention.</b>
<b>INGESTION</b>	<b>POISON. May be fatal if swallowed. DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. Seek prompt medical attention</b>
<b>INHALATION</b>	<b>If inhaled, remove individual from source of exposure to area of fresh air. If breathing is difficult, give oxygen. Seek PROMPT medical attention.</b>
<b>IN ALL CASES WHERE SYMPTOMS ARE SEVERE, SEEK MEDICAL ATTENTION IMMEDIATELY</b>	

## 5 FIRE FIGHTING MEASURES

Product is non-flammable, references to flash point, ignition, temperature and flammable limits in air are NOT applicable

## 6. ACCIDENTAL RELEASE MEASURES

Dilute with water and mop up or absorb with inert dry material and place in appropriate waste container for disposal. If necessary, neutralize the residue with a dilute solution of sodium carbonate. Wear proper protective equipment as specified in the Special Protection Information Section. Insure proper ventilation is available.

## 7. HANDLING & STORAGE

Handling & Storage	<p>Store at room temperature.            Store upright in original container.            Keep container closed tightly when not in use.            Keep away from sources of ignition.            Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, alkalis            Do Not freeze            May corrode metallic surfaces.            Corrosive materials should be stored in a separate storage cabinet or room.            Avoid breathing vapours.            Avoid contact with skin and eyes.            Do not ingest.            If ingested seek medical advice immediately and show container or the label.            Wear suitable protective clothing, may cause severe burns.</p>
DOT Shipping Name	Corrosive Liquids n.o.s. (Contains Acetic Acid)
Dot Hazard Class	8
Dot Label(s)	Corrosive
UN/NA Numbers(s)	UN1760
Packing Group	III

## 8. EXPOSURE CONTROL & PERSONAL PROTECTION

COMPONENT	CAS	% BY WT.	EXPOSURE LIMITS
Proprietary inorganic phosphate	NA	9-14	OSHA PEL & ACGIH TLV: TGWA 1 mg/m <sup>3</sup> , STEL 3 mg/m <sup>3</sup> . (Mist if formed).
Acetic Acid	64-19-7	20-25	OSHA PEL: TWA 10 ppm, ACGIH TLV: TWA 10ppm, STEL 15 ppm
Ammonium nitrate	6484-52-2	10-15	NE
Water	7732-18-5	50-60	NA

## Engineering Controls

Use local exhaust ventilation to control emissions near the source and keep airborne concentrations of vapours below their respective threshold limit values. Provide mechanical ventilation of confined spaces. Have showers and eye wash stations accessible.

## Personal Protection

### Eye Protection

Use suitable safety glasses or goggles to EN122 standard

### Skin Protection

Wear protective clothing such as a lab coat or full protective suit to prevent contamination of clothing and skin. Wear chemical protective gloves of neoprene or nitrile. Wash after use. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse.

### Respiratory Protection

If concentrations of vapours may exceed threshold limit values, use NIOSH approved respiratory protection equipped with filters for acid vapours. If mist is generated, NIOSH approved respiratory protection is strongly recommended.

## Personal Protection in Case of a Large Spill

### Eye Protection

Use full face respirator.

### Skin Protection

Wear protective clothing such as a full protective suit to prevent contamination of clothing and skin. Wear chemical protective gloves of neoprene or nitrile. Wear boots. Wash when finished. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse.

### Respiratory Protection

Use NIOSH approved respiratory protection equipped with filters for acid vapours, self-contained breathing apparatus (SCAB) or other supplied air respirator.

Proprietary inorganic phosphate OSHA PEL & ACGIH TLV: TWA 1 mg/m<sup>3</sup>, STEL 3 mg/m<sup>3</sup>. (Mist if formed)

### Acetic acid

OSHA PEL: TWA 10 ppm,  
ACGIH TLV: TWA 10 ppm. STEL 15 ppm.

## 9. PHYSICAL & CHEMICAL PROPERTIES

Physical Form	Liquid/Suspension	Colour	Brown
Odour	Acetic Acid	Density g/cc	1.1
Boiling Point (°F)	-100°C	Freezing Point (°F)	<0°C
Vapour Pressure @ 77°F	-6 mm Hg	Vapour Density	ND
Solubility in Water	Soluble	Solubility in Organic Solvent	ND
Reaction with Water	None	PH	0.8 – 1.6
% Volatile by Volume	85-95%	Other Comments	Reacts with strong acids or bases

## 10. STABILITY & REACTIVITY

The product is stable under normal conditions. Hazardous polymerisation will not occur.	
Incompatibility (Materials to Avoid)	Avoid contact with materials sensitive to acidic solutions. Reactive or incompatible with organic materials, alkalis, metals, reducing agents and combustible materials.
Corrosion	Corrosive in the presence of magnesium, steel, aluminium, zinc and copper. Slightly corrosive in the presence of stainless steel. Non corrosive in the presence of glass.

## 11. TOXICOLOGICAL INFORMATION

**Routes of entry** Dermal contact, eye contact, inhalation and ingestion.

Boron is classified as harmful under the above regulations, having an LD50 (oral, rat) of 650mg/kg.

### Toxicity to Animals

**Proprietary inorganic phosphate** Acute oral toxicity (LD<sub>50</sub>): 1,530 mg/kg (Rat)  
Acute dermal toxicity (LD<sub>50</sub>): 2,740 mg/kg (Rabbit)

**Acetic acid:** Acute oral toxicity (LD<sub>50</sub>): 3,310 mg/kg (Rat)  
Acute dermal toxicity (LD<sub>50</sub>): 1.06 g/kg (Rabbit)  
Acute toxicity of the vapour (LC<sub>50</sub>): 5,620 ppm 1 hour (Mouse)

### Chronic Effects on Humans

Toxic to lungs and mucous membranes

### Other Toxic Effects on Humans

**Poison. Maybe fatal if swallowed. Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant, permeator) or inhalation (irritant).**

**Carcinogens:**

None known. Not a known or anticipated carcinogen by NTP and IARC.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Acetic acid is expected to be slightly toxic to aquatic life. The LC<sub>50</sub>/96-hour values for fish are between 10 and 100 mg/l.

**Environmental Fate**

When released into the air, acetic acid may be moderately degraded by reaction with photochemically produced hydroxyl radicals and is expected to have a half-life between 10 and 30 days. When released into water, acetic acid is expected to readily biodegrade and is expected to have a half-life between 1 and 10 days. When released into the soil, acetic acid is expected to readily biodegrade and is not expected to significantly bioaccumulate. The proprietary inorganic phosphate may leach into groundwater. Its acidity may be readily reduced by natural water hardness minerals. The phosphate however, may persist indefinitely.

**13. DISPOSAL CONSIDERATIONS**

Unused material for disposal should be handled as hazardous waste. Disposal should be made in accordance with federal, state and local regulations.

**14. TRANSPORT INFORMATION**

<b>DOT Shipping Name</b>	<b>Corrosive Liquids n.o.s. (Contains Acetic Acid)</b>	<b>DOT hazard Class</b>	<b>8</b>
<b>DOT Label(s)</b>	<b>Corrosive</b>	<b>UN Number</b>	<b>UN1760</b>
<b>Packing Group</b>	<b>III</b>	<b>Placards</b>	<b>Corrosive</b>
<b>IATA</b>	<b>Corrosive Liquids n.o.s. (Contains Acetic Acid) 8, UN1760, III</b>		

**15. REGULATORY INFORMATION**

**Federal & State Regulations**

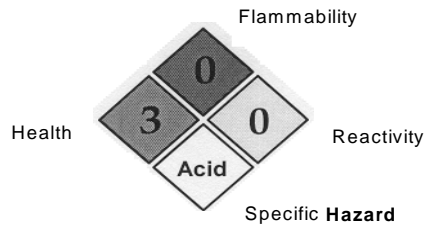
**TSCA Status** All chemical substances in this material are included on or exempted from list on the TSCA Inventory of Chemical Substances.



**TSCA = Toxic Substances Control Act**  
**TWA = time weighted average**

Health Hazard	3
Fire Hazard	0
Reactivity	1
Personal Protection	C

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



Protective Equipment:



Coat



Gloves

Safety Glasses (EN122)