



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

<u>Health and Safety at Work - Control of Substances Hazardous to Health</u>
<u>Material Safety Data Sheet</u>

MSDS No: A2200

1) Chemical Product and Company Identification

PRODUCT NAME: A2200 OTHER/GENERIC NAMES:

FORM: Film PRODUCT USE:

MANUFACTURER/DISTRIBUTOR: Aerovac Systems Ltd

500 Bradford Road

Sandbeds Keighley West Yorkshire BD20 5NG England

For more information call +44 (0) 1274 550500 (Mon - Thurs 8:30-17:00, Fri 8:30-13:45).

#### 2) Composition/Information on Ingredients

Hazardous components: None

 COMPSITION CAS Number:

Ethene, polymer with 1-propene 9010-79-1 Low and high density polyethylene 9002-88-4

· Chemical characterization: Polyolefins

Description:

Mixture of the substances listed below with harmless additives

1-propene, polymer with ethene

Aerovac Systems Ltd www.aerovac.com Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

#### 3) Hazards Identification

- -Indication of danger: None
- -Most important hazards: None
- · Information pertaining to particular dangers for man and environment

The molten product adheres to the skin and causes burns.

Spilled material may present a slipping hazard.

Possible production of electrostatic chargings when used.

The working steams can irritate the eyes as well as the respiratory tract.

Classification system

This product is, according to EEC directives 1999/45, 67/548,76/769 and following amendments, not classified as hazardous.

#### 4) First Aid Measures

- Inhalation: This material is not likely to be hazardous by inhalation.
- · Skin contact: This material is not likely to be hazardous by skin contact.
- Eye contact: Not likely to be an eye hazard in present form.
- Ingestion: Not likely to be ingested in present form.
- Further information:

At room temperature the product is neither an irritant nor gives off hazardous vapours.

The measures listed below apply to critical situations (Fire, incorrect process conditions).

After inhalation

In case of excessive inhalation of fumes move the person to fresh air. Call for medical help.

Keep person warm, if necessary give mouth-to-mouth resuscitation, or artificial respiration.

After skin contact

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product away from the skin.

Seek immediate medical advice.

· After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

No specific measures have to be taken if the product is swallowed.

Get medical advice if necessary.

Aerovac Systems Ltd www.aerovac.com

Aerovac Systems Italy S.r.I www.aerovac.fr

Aerovac Systèmes France www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

#### 5) Flammable Properties

· Suitable extinguishing agents

Water haze

Foam

Carbon dioxide

Chemical powder

- · Extinguishing media which must not be used for safety reason: No information available
- · Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire it can release:

water (H2O), carbon dioxide (CO2), and when lacking oxygen (O2), carbon monoxide (CO)

The products of the burning are dangerous.

The formation of hydrocarbons and aldehydes is possible in the initial stages of a fire (especially in between 400°C and 700°C).

- · Special protective equipment for firefighters: Put on breathing apparatus.
- · Additional information

Heat value: 8000 - 11000 kcal/kg

#### 6) Accidental Release Measures

Person-related safety precautions:

No specific measures are necessary.

See point 8

Measures for environmental protection:

No special measures required.

See points 12 and 13.

· Measures for cleaning/collecting:

Small spills:

Put into a labelled container and provide safe disposal.

Large spills:

Act as during a limited release.

Recycle product or dispose properly.

See point 13

Additional information:

Collect spilled polymer: It could cause falls (Danger of slipping).

Aerovac Systems Ltd Aero www.aerovac.com www

Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

# 7) Handling and Storage

- Handling
- Information for safe handling:

No special requirements necessary, if handled at room temperature.

When bringing the material to processing temperatures gases might develop, forming:

propylene

ethylene

hydrocarbon substances with low molecular weight and their oxidation products

solvent residues

traces of formaldehyde and acrylaldehyde

traces of acids (Formic acid, acetic acid)

For all kinds of polymers, if dust is created during transport or handling, safety measures against danger of explosion have to be taken.

· Information about protection against explosions and fires:

No special measures required.

- Storage
- Requirements to be met by storerooms and containers:

Take precautionary measures to prevent the formation of static electricity.

Do not smoke.

Ground equipment electrically.

Electric safety equipment.

Open flames prohibited.

Information about storage in one common storage facility: Not required.

· Further information about storage conditions:

Protect from heat and direct sunlight.

Store container in a well ventilated position.

Store under dry conditions.

Aerovac Systems Ltd www.aerovac.com

Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

### 8) Exposure Controls/Personal Protection

Components with limit values that require monitoring at the workplace:
 Not required.

Additional information: see point(s) 7, 9.

- · Occupational exposure controls:
- · Personal protective equipment:

### Breathing equipment:

If appropriate ventilation is not available use face mask when handling the molten product. Protection of hands: Wear suitable gloves to protect against prolonged contact. Heat resistant gloves when handling the molten product. Material of gloves - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye protection: Not required in standard use.

Body protection: Normal overalls.

· General protective and hygienic measures:

Do not eat or drink while working.

No smoking.

• Environmental exposure controls: Not likely to be hazardous for the environment in recommended use. Correct disposal (see point 6).

Aerovac Systems Ltd www.aerovac.com

Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com





Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

### 9) Physical and Chemical Properties

General Information coPP / Mod.Polyethylene coex film

Physical state: solid
Form: on roll
Colour: black
Odour: odourless
Value/Range Unit Method

· Change in condition

Melting point/Melting range: 98-160 ° C
 Boiling point/Boiling range: Not applicable

Flash point: Not applicable (see attachment to guideline 92/69/EEC, A.9)

Ignition temperature: > 400 ° C
 Decomposition temperature: > 300 ° C

Danger of explosion: Product is not explosive. See point(s) 7.

Density at 20°C 0.89-0.92 g/cm3 ISO 1183

Solubility in / Miscibility with water:
 Insoluble

· Additional information

Soluble in boiling, aromatic chlorinated solvents.

# 10) Stability and Reactivity

· Thermal decomposition / conditions to be avoided:

The product is stable at normal handling- and storage conditions.

Decomposes over 300°C.

- · Materials to be avoided: Strong oxidation agent
- · Dangerous reactions No dangerous reactions known
- Dangerous products of decomposition: No hazardous decomposition products known at room temperature.

Aerovac Systems Ltd www.aerovac.com

Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

#### 11) Toxicological Information

Acute toxicity: No information available

Primary irritant effect:

on the skin: No irritant effect. on the eye: No irritant effect.

Sensitization: No sensitizing effect known.

Inhalation: Health injuries are not known or expected under normal use
 Ingestion: Health injuries are not known or expected under normal use

· Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12) Ecological Information

Ecotoxcicity effects: No information available
 Aquatic toxicity: No information available

Information about elimination (persistence and degradability):

The product is not biodegradable.

Behaviour in environmental systems:

Mobility and bioaccumulation potential:

Floats on water.

There is no bioaccumulation.

· Other information/Additional ecologic information

The product is not toxic, small particles can have physical effects on water and soil organisms.

## 13) Disposal Considerations

 Waste from residues/unused products: Dispose in accordance with local regulation Recommendation

Reuse or recycle if possible

Disposal through controlled incineration or authorised waste dump.

European waste catalogue 070213 = Plastic waste

Aerovac Systems Ltd
www.aerovac.com

Aerovac Systems Italy S.r.I
www.aerovac.fr

Aerovac Systèmes France
www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.





Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

#### 14) Transport Information

UN/Id NO Not regulated for transport Not regulated for transport ADR/RID Not regulated for transport ICAO/IATA Not regulated for transport

· Transport/Additional information:

According to national and international guidelines, which regulate the road-, rail-, air- and seatransport, this product is classified as not dangerous.

### 15) Regulatory Information

· Designation according to EC guidelines:

The material is not subject to classification according to EC lists and other sources of literature known to us.

Observe the normal safety regulations when handling chemicals

- · National regulations
- D.Lgs. 52/97, D.M.(Min. Della salute) 14/6/2002 e 7/9/2002, D.E. 1999/45/CE, 2001/60/CE e normativa collegata, sulla "Classificazione, imballaggio ed etichettatura delle sostanze e dei preparati pericolosi"
- D.P.R. 547/55 "Norme per la prevenzione degli infortuni sul lavoro"
- D.P.R. 303/56 "Norme generali per l'igiene del lavoro" (controlli sanitari)
- D.P.R. 336/94 "Tabella delle malattie professionali nell'industria"
- D.Lgs. 81/08 "Testo unico sulla salute e sicurezza sul lavoro"
- Further regulations, restrictions and prohibition regulations.

  Generally all national regulations regarding this product type apply.

Aerovac Systems Ltd www.aerovac.com Aerovac Systems Italy S.r.I www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.



Tel: +44 (0) 1274 550500 Fax: +44 (0) 1274 550501 Email: sales@aerovac.com Website: www.aerovac.com

#### 16) Other Information

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics. IPM SrI takes no responsibility for inappropriate use, processing and handling by purchasers and users of the product. This data is offered for your consideration, investigation and verification.

· Prepared by:

Health & Safety

- Bibliography:
- Direttiva 67/548/EEC (G.U. CEE N. 196-16/8/1967) ed aggiornamenti
- Direttiva 1999/45/EC, ed aggiornamenti
- Direttiva 76/769/EEC, ed aggiornamenti
- Direttiva 2001/58/EC
- RTECS (Registry of toxic effects of chemical substances 1985-1986 edition)
- Frostling, Hof, Jacobson; Pfaffli, Zitting, "Thermal decomposition products from plastics"
- EINECS/ELINCS
- 1907/2006/EC

CURRENT ISSUE DATE: May 2011 PREVIOUS ISSUE DATE: October 2009

Aerovac Systems Ltd www.aerovac.com

Aerovac Systems Italy S.r.l www.aerovac.it

Aerovac Systèmes France www.aerovac.fr

Richmond Aircraft Products www.richmondaircraft.com

Aerovac Systems Ltd.

All statements, technical information and recommendations contained in this publication are based on tests believed to be reliable, but their accuracy and/or completeness are not guaranteed. The user shall determine the suitability for this particular purpose and shall assume all risk and liability in connection herewith. All values stated are nominal. For further details about tolerances please contact Aerovac Systems quality department.