Chemwatch Independent Material Safety Data Sheet

Issue Date: 11-Oct-2010

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ARDEX DS60 DECOUPLING MAT

SYNONYMS

"decoupling membrane"

PRODUCT USE

Decoupling mat.

SUPPLIER

Company: Ardex Australia Pty Ltd

Address:

20 Powers Road Seven Hills NSW, 2147 Australia

Telephone: 1800 224 070

Emergency Tel: 1800 224 070 (Mon- Fri, 9am- 5pm)

Fax: +61 2 9838 7817

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

CHEMWATCH HAZARD RATINGS



RISK

•None under normal operating conditions.

SAFFTY

•None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
carbon black	1333-86-4	20-45
polyolefins.		10-30
stabilisers.		<5
isobutylene homopolymer	9003-27-4	NotSpec
isoprene homopolymer	9003-31-0	NotSpec
rubber accelerators		NotSpec
vulcanising agents		NotSpec

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Section 4 - FIRST AID MEASURES

SWALLOWED

■ Not applicable.

EYE

- If this product comes in contact with eyes:
- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin or hair contact occurs:
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

■ Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

■ Combustible.

Decomposes on heating and produces toxic fumes of: carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

■ None known.

HAZCHEM

None

PERSONAL PROTECTION

Glasses: Gloves: Respirator:

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Section 5 - FIRE FIGHTING MEASURES

Not normally required. When handling larger quantities: Type A Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Secure load if safe to do so.
- Bundle/collect recoverable product.
- Collect remaining material in containers with covers for disposal.

MAJOR SPILLS

- Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear physical protective gloves e.g. Leather.
- Contain spill/secure load if safe to do so.
- Bundle/collect recoverable product and label for recycling.
- Collect remaining product and place in appropriate containers for disposal.
- Clean up/sweep up area.
- Water may be required.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

SUITABLE CONTAINER

■ No restriction on the type of containers. Packing as recommended by manufacturer. Check all material is clearly labelled.

STORAGE INCOMPATIBILITY

■ No known incompatibility with normal range of industrial materials.

STORAGE REQUIREMENTS

■ No special storage precautions required.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS Source Material TWA mg/m³ Carbon black (Carbon black) 3

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

• isobutylene homopolymer: CAS:9003-27-4 CAS:9003-29-6

• isoprene homopolymer: CAS:9003-31-0 CAS:104389-31-3 CAS:104389-32-4

EMERGENCY EXPOSURE LIMITS

Revised IDLH Value (mg/m³) Material Revised IDLH Value (ppm)

carbon black 1,750

ODOUR SAFETY FACTOR (OSF)

OSF=3.8 (N-cyclohexyl-2-benzothiazolesulfenamide)

■ Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
Α	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being
		reached, even when distracted by working activities
В	26- 550	As " A" for 50- 90% of persons being distracted
С	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

MATERIAL DATA

CARBON BLACK:

■ The TLV-TWA for carbon black is recommended to minimise complaints of excessive dirtiness and applies only to commercially produced carbon blacks or to soots derived from combustion sources containing absorbed polycyclic aromatic hydrocarbons (PAHs). When PAHs are present in carbon black (measured as the cyclohexaneextractable fraction) NIOSH has established a REL-TWA of 0.1 mg/m3 and considers the material to be an occupational carcinogen.

The NIOSH REL-TWA was "selected on the basis of professional judgement rather than on data delineating safe from unsafe concentrations of PAHs".

This limit was justified on the basis of feasibility of measurement and not on a demonstration of its safety.

ISOBUTYLENE HOMOPOLYMER:

■ No exposure limits set by NOHSC or ACGIH.

ISOPRENE HOMOPOLYMER:

■ for isoprene:

Russian OEL STEL: 40 mg/m3

CEL TWA: 50 ppm, 139 mg/m3 (compare WEEL TWA) Saturated vapour concentration: 724000 ppm at 25 C.

Odour Threshold Value: 0.005 ppm

The workplace environmental exposure level (WEEL) established by the AIHA is thought to be protective

continued...

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

against respiratory tract irritation and against potential subacute and subchronic effects reported in several studies.

PERSONAL PROTECTION

FYF

- No special equipment for minor exposure i.e. when handling small quantities.
- OTHERWISE:
- Safety glasses with side shields.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- No special equipment needed when handling small quantities OTHERWISE:.
- Cotton gloves.

When handling hot material, wear.

- Protective gloves eg. Leather gloves or gloves with Leather facing.

OTHER

- No special equipment needed when handling small quantities OTHERWISE:
- Overalls
- Eyewash unit.

RESPIRATOR

■ Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level	Maximum Protection	Half- face Respirator	Full- Face Respirator
ppm (volume)	Factor		
1000	10	A- AUS	-
1000	50	-	A- AUS
5000	50	Airline *	-
5000	100	-	A- 2
10000	100	-	A- 3
	100+		Airline**

^{* -} Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

■ Area where polymer is heat processed should be ventilated to remove vapour, fumes released during all stages of processing.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Black membrane sheet/roll with a slightly pungent odour; insoluble in water.

PHYSICAL PROPERTIES

Does not mix with water.

State	Manufactured	Molecular Weight	Not Applicable
Melting Range (℃)	Not Available	Viscosity	Not Applicable
Boiling Range (℃)	Not Applicable	Solubility in water (g/L)	Immiscible
Flash Point (℃)	>63	pH (1% solution)	Not Applicable
Decomposition Temp (℃)	Not Available	pH (as supplied)	Not A pplicable
Autoignition Temp (℃)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	Not Available
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%vol)	Not Applicable	Evaporation Rate	Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

 \blacksquare Product is considered stable and hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Not normally a hazard due to physical form of product.

EYE

■ Not normally a hazard due to physical form of product.

SKIN

■ Skin contact does not normally present a hazard, though it is always possible that occasionally individuals may be found who react to substances usually regarded as inert.

INHALED

■ Not normally a hazard due to non-volatile nature of product.

Inhalation of vapour is more likely at higher than normal temperatures.

The vapour from heated material is discomforting to the upper respiratory tract.

CHRONIC HEALTH EFFECTS

■ Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

The additives are immobilised in the rubber and do not present a hazard during handling at room temperatures.

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Section 11 - TOXICOLOGICAL INFORMATION

TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

ISOPRENE HOMOPOLYMER:

ISOBUTYLENE HOMOPOLYMER:

■ No significant acute toxicological data identified in literature search.

ARDEX DS60 DECOUPLING MAT:

TOXICITY IRRITATION

CARBON BLACK:

TOXICITY IRRITATION Inhalation (rat) TCLo: 50 mg/m³/6h/90D- I Nil Reported

Inhalation (rat) TCLo: 7 mg/m³ Dermal (rabbit) LD50: >3000 mg/kg

■ WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

CARBON BLACK:

■ DO NOT discharge into sewer or waterways.

Ecotoxicity

Ingredient Persistence: Persistence: Air Bioaccumulation Mobility

Water/Soil

isobutylene homopolymer LOW LOW HIGH isoprene homopolymer HIGH LOW HIGH

Section 13 - DISPOSAL CONSIDERATIONS

- - Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

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Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

carbon black (CAS: 1333-86-4) is found on the following regulatory lists;

"Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

isobutylene homopolymer (CAS: 9003-27-4,9003-29-6) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "OECD Representative List of High Production Volume (HPV) Chemicals"

isoprene homopolymer (CAS: 9003-31-0,104389-31-3,104389-32-4) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

No data for Ardex DS60 Decoupling Mat (CW: 25-0018)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name CAS

isobutylene homopolymer 9003- 27- 4, 9003- 29- 6

isoprene homopolymer 9003- 31- 0, 104389- 31- 3, 104389- 32- 4

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.