

ARDEX BUTYNOL HOT TAPE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 29-Nov-2012
A317LP(cs)

CHEMWATCH 33-7186
Version No:2.1.1.1
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ARDEX BUTYNOL HOT TAPE

SYNONYMS

"butyl rubber black joining flashing mastic tape"

PRODUCT USE

Joining and flashing mastic tape.

SUPPLIER

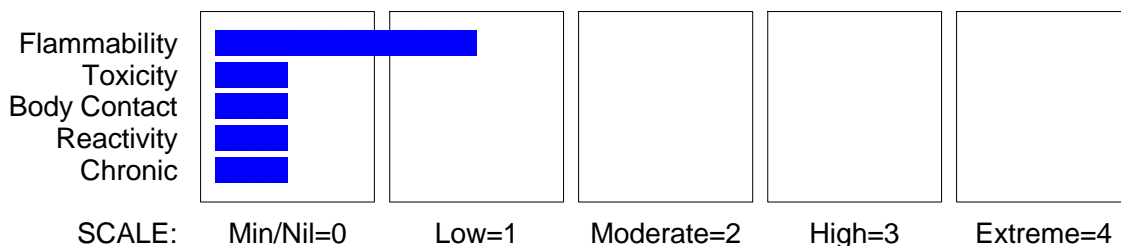
Company: Ardex Australia Pty Ltd
Address:
20 Powers Road
Seven Hills
NSW, 2147
Australia
Telephone: 1800 224 070
Emergency Tel: 1800 224 070 (Mon- Fri, 9am- 5pm)
Fax: +61 2 9838 7817

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.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
Tape consisting of		
isobutylene homopolymer	9003-27-4	N/S
2- butene homopolymer - polybutene	9003-29-6	N/S
ethylene/ propylene/ ethyldenenorbornene terpolymer	25038-36-2	N/S
carbon black	1333-86-4	N/S
isoprene/ isobutene copolymer (butyl rubber)	9010-85-9	N/S
additives, unregulated		N/S
on a		

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

polyethylene backing with release surface layer

Section 4 - FIRST AID MEASURES

SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

Not normally a hazard due to physical form of product.

EYE

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

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.

Not normally a hazard due to physical form of product.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

- Treat symptomatically.
-

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Dry chemical powder.
- 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 in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding 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.

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Section 5 - FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

- Combustible.

NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke.

Combustion products include: carbon monoxide (CO) and carbon dioxide (CO₂).

FIRE INCOMPATIBILITY

- Avoid reaction with strong oxidisers.

HAZCHEM

None

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Sweep up.

Collect recoverable product into labelled containers for recycling.

Place in suitable containers for disposal.

MAJOR SPILLS

- Advise emergency services.

Control personal contact with the substance, by using protective equipment.

Collect recoverable product into labelled containers for recycling.

Recover uncontaminated product in clean, dry, labelled containers.

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.
- Atmosphere should be checked against exposure standards
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.

SUITABLE CONTAINER

- No restriction on the type of containers.
- Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

- Segregate from strong oxidisers, strong acids and alkalies.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- isobutylene homopolymer: CAS:9003- 27- 4 CAS:9003- 29- 6
- 2- butene homopolymer - polybutene: CAS:9003- 29- 6
- ethylene/ propylene/ ethylidenenorbornene terpolymer: CAS:25038- 36- 2
- isoprene/ isobutene copolymer (butyl rubber): CAS:9010- 85- 9

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
carbon black 13230	1, 750	

MATERIAL DATA

2-BUTENE HOMOPOLYMER - POLYBUTENE:

ISOBUTYLENE HOMOPOLYMER:

- No exposure limits set by NOHSC or ACGIH.

ARDEX BUTYNOL HOT TAPE:

- None assigned. Refer to individual constituents.

ETHYLENE/ PROPYLENE/ ETHYLIDENENORBORNENE TERPOLYMER:

■ Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

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 cyclohexane-extractable 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.

ISOPRENE/ ISOBUTENE COPOLYMER (BUTYL RUBBER):

- for isoprene:

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Russian OEL STEL: 40 mg/m³

CEL TWA: 50 ppm, 139 mg/m³ (compare WEEL TWA)

(CEL = Chemwatch Exposure Limit)

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

TLV TWA: 0.001 mg/m³ (as total proteins) Inhalable fraction skin sensitiser as rubber processing fume:

MEL-TWA: 0.6 mg/m³ as cyclohexane solubles [HSE, UK]

BRMA-TWA: 0.25 mg/m³ as cyclohexane solubles [BRMA Code of Practice]

Rubber fume is a complex and indeterminate mixture of substances and is defined as "fume evolved in the mixing, milling and blending of natural rubber and synthetic polymers combined with chemicals, and in the processes which convert the resultant blend into finished products or parts thereof, and including any inspection procedures where fume continues to be evolved".

"Fume" generally describes solid particles generated by chemical reactions, or by condensation from the gaseous state, usually after volatilisation from melted substances, and often accompanied by a chemical reaction such as oxidation or thermal breakdown.

Several chemical agents may occur in rubber fume which are experimental or animal carcinogens, however, given the number of chemicals used or formed during rubber making, difficulties arise in attributing a particular effect to a given exposure.

Stomach cancer has been associated with work in jobs early in the production line; lung and lower oesophagus cancer with all work processes; and lymphomas with jobs where co-exposure to solvents occurs. Other cancers have also been reported with liver tumours appearing as a secondary phenomenon. No no-effect levels have been determined.

Two studies showed no excess of bladder cancer in workers entering the industry after 1950: the excess risk before that date is thought to result from exposure to residual beta-naphthylamines previously used as anti-oxidants.

as rubber process dust:

MEL-TWA: 6 mg/m³ [HSE, UK]

Rubber process dust is a complex, variable mixture of particulates defined as "dust arising in the stages of rubber manufacture where ingredients are handled, weighed, added to or mixed with natural or synthetic elastomers. It does not include dusts arising from the abrasion of cured rubber but occurs during the preparation of compounds of either synthetic or natural rubber.

There is some evidence that occupational exposure to rubber dusts produces an excess incidence of stomach cancer. HSE data concluded that there was a small but significant excess of stomach cancer associated with the initial processes in rubber manufacture. Stomach cancer shows a marked social class gradient, which may lead to an over-estimation of the risk.

One report from the USA stated that exposure in rubber processing areas produces pulmonary disease but this has not been supported by UK epidemiology nor reports from the industry.

No no-effect level has been determined. The MEL was considered appropriate because it was felt reasonably practical for industry to comply with this value.

PERSONAL PROTECTION

EYE

■ 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], [AS/NZS 1336 or national

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

equivalent].

HANDS/FEET

■ No special equipment needed when handling small quantities.

OTHERWISE: Wear chemical protective gloves, e.g. PVC.

OTHER

■ No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

RESPIRATOR

•Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Slightly black tacky solid in a roll form with polyethylene backing.
Insoluble in water.

PHYSICAL PROPERTIES

Does not mix with water.

State	Manufactured	Molecular Weight	Not applicable.
Melting Range (°C)	Not available	Viscosity	Not available
Boiling Range (°C)	Not applicable.	Solubility in water (g/L)	Insoluble.
Flash Point (°C)	Not applicable	pH (1% solution)	Not applicable.
Decomposition Temp (°C)	Not available.	pH (as supplied)	Not applicable
Autoignition Temp (°C)	Not available	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)	Negligible	Evaporation Rate	Not applicable

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Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- 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.
The material is discomforting to the gastro-intestinal tract.

EYE

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

SKIN

- The material is moderately discomforting to the skin and is and is capable of causing skin reactions which may lead to dermatitis from repeated exposures over long periods.

INHALED

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

CHRONIC HEALTH EFFECTS

- Primary route of exposure is usually by skin contact with the material.
As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

TOXICITY AND IRRITATION

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

ETHYLENE/ PROPYLENE/ ETHYLIDENENORBORNENE TERPOLYMER:

ISOPRENE/ ISOBUTENE COPOLYMER (BUTYL RUBBER):

ISOBUTYLENE HOMOPOLYMER:

- No significant acute toxicological data identified in literature search.

ARDEX BUTYNOL HOT TAPE:

- Not available. Refer to individual constituents.

2-BUTENE HOMOPOLYMER - POLYBUTENE:

Nil reported

Inhalation (rat) TCl_o: 700 mg/m³/7H/2W-I

CARBON BLACK:
TOXICITY

IRRITATION

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Section 11 - TOXICOLOGICAL INFORMATION

Inhalation (rat) TCl_o:50 mg/m³/6h/90D- I

Nil Reported

Inhalation (rat) TCl_o: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.

CARCINOGEN

carbon black	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B
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SKIN

isobutylene homopolymer	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	(0)
isobutylene homopolymer	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	0
2- butene homopolymer - polybutene	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	(0)
2- butene homopolymer - polybutene	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	0

Section 12 - ECOLOGICAL INFORMATION

CARBON BLACK:

■ **DO NOT** discharge into sewer or waterways.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
isobutylene homopolymer	LOW	No Data Available	LOW	HIGH
2- butene homopolymer - polybutene	No Data Available	No Data Available	No Data Available	No Data Available
ethylene/ propylene/ ethylidenenorbornene terpolymer	No Data Available	No Data Available	No Data Available	No Data Available
carbon black	No Data Available	No Data Available	No Data Available	No Data Available
isoprene/ isobutene copolymer (butyl rubber)	No Data Available	No Data Available	No Data Available	No Data Available

Section 13 - DISPOSAL CONSIDERATIONS

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

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Section 14 - TRANSPORTATION INFORMATION

HAZCHEM:

None (ADG7)

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

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

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

"Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals"

2-butene homopolymer - polybutene (CAS: 9003-29-6) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals"

ethylene/ propylene/ ethylenenorbornene terpolymer (CAS: 25038-36-2) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

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 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", "OECD List of High Production Volume (HPV) Chemicals"

isoprene/ isobutene copolymer (butyl rubber) (CAS: 9010-85-9) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

No data for Ardex Butynol Hot Tape (CW: 33-7186)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
isobutylene homopolymer	9003- 27- 4, 9003- 29- 6

■ 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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Section 16 - OTHER INFORMATION

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This is the end of the MSDS.