

DUNLOP CORK TILE ADHESIVE

Chemwatch Material Safety Data Sheet
Issue Date: 28-Feb-2006

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DUNLOP CORK TILE ADHESIVE

SYNONYMS

PRODUCT USE

Latex based adhesive especially formulated for adhering cork tiles to most concrete and timber substrates.

SUPPLIER

Company: Ardex Australia Pty Ltd

Address:

20 Powers Road

Seven Hills

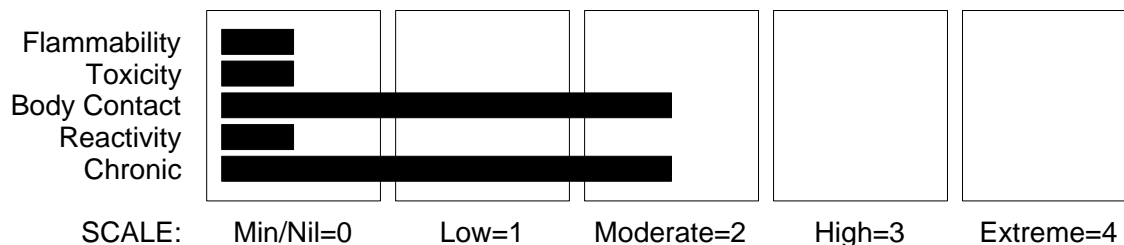
NSW, 2147

AUS

Telephone: 1800 224 070

Fax: +61 2 9838 7817

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

None

RISK

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HARMFUL-May cause lung damage if swallowed.

Cumulative effects may result following exposure*.

Limited evidence of a carcinogenic effect*.

May be harmful to the foetus/ embryo*.

* (limited evidence).

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Section 2 - HAZARDS IDENTIFICATION

SAFETY

Avoid exposure - obtain special instructions before use.

To clean the floor and all objects contaminated by this material, use water.

Keep away from food, drink and animal feeding stuffs.

If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
filler		20-30
latex emulsion		15-25
resin		15-25
mineral turpentine	Not avail.	5-10
ammonia	1336-21-6	0-2
water	7732-18-5	25-35

Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

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.

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

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Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam
- dry chemical powder
- carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- 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.

FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.

Decomposition may produce toxic fumes of, carbon dioxide (CO₂), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

FIRE INCOMPATIBILITY

None known.

HAZCHEM

None

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.

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Section 6 - ACCIDENTAL RELEASE MEASURES

- Flush spill area with water.

MAJOR SPILLS

Minor hazard.

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

ammonia 35 ppm
water 500 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

ammonia 35 ppm
water 500 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:

ammonia 35 ppm
water 500 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health effects:

ammonia 25 ppm
water 500 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.

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Section 7 - HANDLING AND STORAGE

- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

None known.

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 storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³
Australia Exposure Standards	Ammonia	25	17	35	24		
No data available:	mineral turpentine as (CAS: Not avail)						
No data available:	ammonia as (CAS: 1336-21-6)						
No data available:	water as (CAS: 7732-18-5)						

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (ppm)	Revised IDLH Value (mg/m ³)
Ammonia	300	

No data for Dunlop Cork Tile Adhesive.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of vapour components/concentrations:

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Composite Exposure Standard for Mixture (TWA) (mg/m³): 480 mg/m³

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m³):

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc: (%).

Component	Breathing zone (ppm)	Breathing Zone (mg/m ³)	Mixture Conc (%)
mineral turpentine	80.00	480.0000	10.0

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m³):

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc: (%).

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

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Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

At the "Composite Exposure Standard for Mixture" (TWA) (mg/m³): 10 mg/m³

INGREDIENT DATA

MINERAL TURPENTINE:

CEL TWA: 80 ppm, 480 mg/m³ [Shell]

AMMONIA:

Odour Threshold Value: Variously reported as 0.019 ppm and 55 ppm;

AIHA Value 16.7 ppm (detection)

NOTE: Detector tubes for ammonia, measuring in excess of 1 ppm, are commercially available.

The TLV-TWA is thought to be protective against irritation of the eyes and respiratory tract and minimise discomfort among workers that are not inured to its effects and systemic damage. Acclimatised persons are able to tolerate prolonged exposures of up to 100 ppm without symptoms. Marked irritation has been seen in persons exposed to ammonia concentrations between 50 and 100 ppm only when the exposures involved sudden concentration peaks which do not permit short-term acclimatisation. The detoxification capacity of the liver is significant since the amount of ammonia formed endogenously in the intestines markedly exceeds that from external sources.

Human exposure effects, at vapour concentrations of about:

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ppm	Possible Effects
5	minimal irritation
9-50	nasal dryness, olfactory fatigue and moderate irritation
125-137	definite nose, throat and chest irritation
140	slight eye irritation
150	laryngeal spasm
500	30 minute exposures may produce cyclic hypernea, increased blood pressure and pulse rate, and upper respiratory tract irritation which may persist for 24 hours
700	immediate eye irritation
1500-10000	dyspnea, convulsive coughing, chest pain, respiratory spasm, pink frothy sputum, rapid asphyxia and delayed pulmonary oedema which may be fatal. Other effects include runny nose, swelling of the lips, restlessness, headache, salivation, nausea, vomiting, glottal oedema, pharyngitis, tracheitis, and speech difficulties. Bronchopneumonia, asphyxiation due to spasms, inflammation, and oedema of the larynx, may be fatal. Residual effects include hoarseness, productive cough, and decreased respiratory function
>2500	severe eye irritation, with swelling of the eyelids, lachrymation, blepharospasm, palpebral oedema, increased intraocular pressure, oval semi-dilated, fixed pupils, corneal ulceration (often severe) and temporary blindness. Depending on duration of exposure, there may be destruction of the epithelium, corneal and lenticular opacification, and iritis accompanied by hypopyon or haemorrhage and possible loss of pigment from the posterior layer of the iris. Less severe damage is often resolved. In the case of severe damage, symptoms may be delayed; late complications including persistent oedema, vascularisation and corneal scarring, permanent opacity, acute angle glaucoma, staphyloma, cataract, and atrophy of the retina, iris, and symblepharon. Long-term exposure to sub-acute concentrations or single exposures to high concentrations may produce chronic airway dysfunction, alveolar disease, bronchiolitis, bronchiectasis, emphysema and anxiety neuroses

WATER:

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

EYE

- Safety glasses with side shields
- Chemical goggles.
- 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

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Wear chemical protective gloves, eg. PVC.

Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

RESPIRATOR

Respiratory protection may be required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor	Half-Face Respirator	Full-Face Respirator
10 x ES	AK-AUS AK-PAPR-AUS	-
50 x ES	Air-line*	-
100 x ES	-	AK-3
100+ x ES	-	Air-line**

* - Continuous-flow; ** - Continuous-flow or positive pressure demand

^ - Full-face.

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

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

Off-white paste with an ammonia odour; mixes with water.

PHYSICAL PROPERTIES

Mixes with water.

Molecular Weight: Not Applicable

Melting Range (C): Not Available

Boiling Range (C): 100

Specific Gravity (water=1): 1.15

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Solubility in water (g/L): Miscible
pH (1% solution): Not Available
Volatile Component (%vol): 45 approx.
Relative Vapour Density (air=1): Not Available
Lower Explosive Limit (%): Not Applicable
Autoignition Temp (C): Not Applicable
State: Non Slump Paste

pH (as supplied): Not Available
Vapour Pressure (kPa): Not Available
Evaporation Rate: Not Available
Flash Point (C): Not Applicable
Upper Explosive Limit (%): Not Applicable
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733).

EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. There is

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Section 11 - TOXICOLOGICAL INFORMATION

some evidence that human exposure to the material may result in developmental toxicity. This evidence is based on animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

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

MINERAL TURPENTINE:

Not available. Refer to individual constituents.

AMMONIA:

TOXICITY

Oral (rat) LD50: 350 mg/kg

Oral (human) LDLo: 43 mg/kg

Inhalation (human) LCLo: 5000 ppm/5m

Inhalation (human) TCLo: 20 ppm

Inhalation (rat) LC50: 2000 ppm/4h

Unreported (man) LDLo: 132 mg/kg

IRRITATION

Eye (rabbit): 0.25 mg SEVERE

Eye (rabbit): 1 mg/30s SEVERE

WATER:

No significant acute toxicological data identified in literature search.

Section 12 - ECOLOGICAL INFORMATION

Drinking Water Standards:

hydrocarbon total: 10 ug/l (UK max.).

DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

MINERAL TURPENTINE:

DO NOT discharge into sewer or waterways.

AMMONIA:

Fish LC50 (96hr.) (mg/l): 0.45-0.8

Toxicity Fish: LC50(96)0.25-8.2mg/L

Toxicity invertebrate: LC50(96)1.1-1.53mg/L

Bioaccumulation: some

Nitrif. inhib.: some

processes Abiotic: oxid

In air ammonia is persistent whilst, in water, it biodegrades rapidly to

nitrate, producing a high oxygen demand. Ammonia is strongly adsorbed to soil.

Ammonia is non-persistent in water (half-life 2 days) and is moderately toxic to

fish under normal temperature and pH conditions. Ammonia is harmful to aquatic

life at low concentrations but does not concentrate in the food chain.

Drinking Water Standards:

0.5 mg/l (UK max.)

1.5 mg/l (WHO Levels)

Soil Guidelines: none available.

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Section 12 - ECOLOGICAL INFORMATION

Air Quality Standards: none available.

Section 13 - DISPOSAL CONSIDERATIONS

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

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM

None

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

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

None

REGULATIONS

No regulations applicable

ammonia (CAS: 1336-21-6) is found on the following regulatory lists;

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

Australia Poisons Schedule

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

water (CAS: 7732-18-5) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

OECD Representative List of High Production Volume (HPV) Chemicals

No data available for mineral turpentine as CAS: Not avail.

Section 16 - OTHER INFORMATION

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