



Material Safety Data Sheet

This material is hazardous according to criteria of NOHSC.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

1. Identification of the substance/preparation and of the company/undertaking

Product Name: LIQUID NAILS DIRECT STICK

Packaging Type 14 kg plastic drum
700g foil sausage

Supplier: Selleys Pty Ltd
ABN: 67 000 049 427
Street Address: 1 Gow Street
Padstow 2211
Australia
Telephone Number: +61 2 9781 8777
Facsimile: +61 2 9781 8825

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. Composition/information on ingredients

Product Description: Floor adhesive. Brown viscous liquid.

Components / CAS Number	Proportion	Risk Phrases
Filler	30-60%	-
-		
Polymeric MDI copolymer 53862-89-8	10-<30%	-
Diphenylmethane-4,4- diisocyanate MDI 101-68-8	1-<10%	R20, R36/37/38, R42/43
Isocyanic acid, polymethylene polyphenylene ester 9016-87-9	1-<10%	R20 R36/37/38 R42/43
Solvent naphtha (petroleum)heavy arom. 64742-94-5	1-<10%	R65

3. Hazards identification

Risk Phrases: Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin

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contact.

Poisons Schedule: None allocated.

4. First-aid measures

For advice, contact a Poisons Information Centre (Phone eg. Australia 131 126; New Zealand 0 800 764766) or a doctor.

- Inhalation:** Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discoloration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.
- Skin Contact:** If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.
- Eye Contact:** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.
- Notes to physician:** Treat symptomatically. Effects may be delayed.

5. Fire-fighting measures

- Specific Hazards:** Combustible liquid.
- Fire-fighting advice:** On burning will emit toxic fumes, including those of hydrogen cyanide, oxides of carbon and oxides of nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.
- Suitable Extinguishing Media:** Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. Accidental release measures

SMALL SPILLS: Wipe up with rag or absorbent paper.

LARGE SPILLS: Work up wind or increase ventilation. Wear protective equipment to prevent skin and eye contact. Scrape up excess material before cure. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Cured material can only be removed by cutting or abrasion.

7. Handling and storage

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Handling advice: Avoid skin and eye contact and breathing in vapour.

Storage advice: Store in cool place and out of direct sunlight. Keep dry - reacts with water. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

8. Exposure controls/personal protection

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for constituent(s):

Isocyanates, all (as -NCO): 8hr TWA = 0.02 mg/m³, 15 min STEL = 0.07 mg/m³, Sen

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

'Sen' Notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering Control Measures:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Keep containers closed when not in use.

Personal Protective Equipment:

Selleys Factory Safe Handling Code: Blue

Blue - Wear clean overalls, safety boots, general purpose gloves (PVC) and full face visor. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If inhalation risk exists due to processing vapours wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

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When using the product as an adhesive: wear protective clothing, impervious gloves and safety glasses.

9. Physical and chemical properties

Physical state:	Viscous liquid
Colour:	Brown
Solubility:	Insoluble in water. Uncured material is soluble in organic solvents.
Specific Gravity:	1.4
Relative Vapour Density (air=1):	>1
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	68
Flammability Limits (%):	0.8-6.0
Autoignition Temperature (°C):	N Av
% Volatile by Volume:	10
Solubility in water (g/L):	Insoluble
Melting Point/Range (°C):	N App
Boiling Point/Range (°C):	180
Decomposition Point (°C):	N Av
pH:	N App
Viscosity:	N Av
Evaporation Rate:	N Av

10. Stability and reactivity

Stability: Incompatible with oxidising agents , acids and alcohols . Reacts with moisture .

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

- Ingestion:** Swallowing may result in nausea, vomiting, and abdominal pain.
- Eye contact:** An eye irritant.
- Skin contact:** Contact with skin will result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
- Inhalation:** Material is irritant to the mucous membranes of the respiratory tract (airways). A respiratory sensitiser. Can cause possible allergic reactions, producing asthma-like symptoms.

Long Term Effects:

No information available for the product. For Isocyanates (1): Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitisers including diisocyanates. These results emphasise the need for protective clothing including gloves to be worn when handling these chemicals or in maintenance work.

Toxicological Data:

No LD50 data available for the product. For the constituent Polymeric MDI (1):

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Oral LD50 (rat): >5000 mg/kg
Dermal LD50 (rabbit): >5000 mg/kg
Inhalation LC50 (rat): 490 mg/kg (respirable aerosol)

Rats were exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top exposure level (6 mg/m³) was there a significant incidence of a benign lung tumour (adenoma) and one malignant tumour (adenocarcinoma). There were no lung tumours at 1 mg/m³ and no effects at 0.2 mg/m³. The tumour incidence, both benign and malignant, and the number of animals with tumours were no different from the controls. The increased incidence of lung tumours is associated with prolonged respiratory irritation and the concurrent accumulation of a yellow material in the lung, which occurred throughout the study. In the absence of prolonged high exposure leading to chronic irritation and lung damage, it is highly unlikely that tumour formation could occur. Industrial experience with humans has not shown any links between MDI exposure and cancer development.

No birth defects were seen in two independent animal (rat) studies.

Fetotoxicity was observed at doses that were highly toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were maternally toxic. The doses used in these studies were maximal, respirable concentrations, which were well in excess of defined occupational exposure limits.

There is no substantial evidence of mutagenic potential.

EYES(rabbit): 100ug - Draize - MILD

Respiratory hypersensitivity in Guinea pigs has resulted from Dermal exposure to MDI

12. Ecotoxicological information

Avoid contaminating waterways.

13. Disposal considerations

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Normally suitable for incineration by an approved agent.

14. Transport information

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

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Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. Regulatory information

Classification: This material is hazardous according to criteria of NOHSC.
Xn: Harmful
Xi: Irritant

Risk Phrase(s): R36/37/38: Irritating to eyes, respiratory system and skin.
R42/43: May cause sensitisation by inhalation and skin contact.

Safety Phrase(s): S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.

Poisons Schedule: None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. Other information

(1) Material Safety Data Sheet - Orica Australia Pty Ltd; 05/ 1998.

This material safety data sheet has been prepared by SH&E Shared Services, Orica.
For further copies of this sheet or other product information contact Selley's Proprietary Limited Customer Service.
Phone: 1300 555 205 (Australia wide)
Fax: 1300 555 305 (Australia wide)
Phone: 9 820 4852 (New Zealand)
Fax: 0800 804 583 (New Zealand)

Reason(s) for Issue:

Addition of Packaging Type. Change in Hazardous Substance Classification

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

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If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

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