



Material Safety Data Sheet

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.
Not classified as a Dangerous Good under NZS 5433:1999 Transport of Dangerous Goods on Land.

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: Selley's (A Division of ORICA NEW ZEALAND LIMITED)
Street Address: 495 Rosebank Road
Avondale, Auckland
New Zealand

Telephone Number: +64 9 820 4850
Facsimile: 0 800 804 583
Emergency Telephone: 0 800 734 607 (ALL HOURS)

2. Composition/information on ingredients

Product Description: Floor adhesive. Brown viscous liquid.

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

3. Hazards identification

Hazard Classification: Subclass 3.1 Category D (low hazard) - Flammable Liquids.
Subclass 6.3 Category A - Substances that are irritating to the skin.
Subclass 6.4 Category A - Substances that are irritating to the eye.
Subclass 6.5 Category A - Substances that are respiratory sensitisers.
Subclass 6.5 Category B - Substances that are contact sensitisers.

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 000000006146

Issued: 22/03/2004

Version: 3



Material Safety Data Sheet

Toxic Substance: 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 discolouration 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

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

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 00000006146

Issued: 22/03/2004

Version: 3



Material Safety Data Sheet

incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

8. Exposure controls/personal protection

Occupational Exposure Limits:

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Workplace Exposure Standard(s) for constituent(s):

Isocyanates, all, (as -NCO): WES-TWA 0.02 mg/m³; WES-STEL 0.07 mg/m³, sen

As published by the New Zealand Occupational Safety and Health Service (OSH).

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

'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 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.

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

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 00000006146

Issued: 22/03/2004

Version: 3



Material Safety Data Sheet

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 sensitizer. 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 sensitizer. 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 sensitizers including diisocyanates. These results emphasize 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):

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.

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 00000006146

Issued: 22/03/2004

Version: 3



Material Safety Data Sheet

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 a Dangerous Good under NZS 5433:1999 Transport of Dangerous Goods on Land.

Marine Transport

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

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: Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Hazard Classification: Subclass 3.1 Category D (low hazard) - Flammable Liquids.
Subclass 6.3 Category A - Substances that are irritating to the skin.
Subclass 6.4 Category A - Substances that are irritating to the eye.

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 00000006146

Issued: 22/03/2004

Version: 3



Material Safety Data Sheet

Subclass 6.5 Category A - Substances that are respiratory sensitisers.

Subclass 6.5 Category B - Substances that are contact sensitisers.

Toxic Substance: None allocated.

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.

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.

Product Name: LIQUID NAILS DIRECT STICK
Substance No: 00000006146

Issued: 22/03/2004

Version: 3