

Material Safety Data Sheet

SELLEYS

PTY LIMITED
ACN 000 049 427

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: SPACE INVADER (AEROSOL)

Synonyms: Self-expanding, one part polyurethane filler packed in an aerosol can.

CAS-No.:

Molecular Formula:

MANUFACTURER'S CODE:

300g aerosol can - 9300697110275
500g aerosol can - 9300697110282

Supplier: Selleys Pty Limited
ACN: 000 049 427
Street Address: 1 Gow Street
Padstow 2211
Australia
Telephone: + 61 2 9707 8111
Facsimile: + 61 2 9707 8225

Emergency telephone number: 1 800 033 111 (ALL HOURS)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Filler to block gaps and cavities in buildings.

Appearance: Product sprays from can as a thick, honey coloured foam.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Isocyanate terminated polymer	-	VHIGH
4,4'-Diphenylmethane diisocyanate (MDI)	101-68-8	LOW
1,1,1,2-Tetrafluoroethane	811-97-2	LOW
Dimethylether	115-10-6	LOW
		----- 100%

PROPORTION (% weight per weight):

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

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

3. HAZARDS IDENTIFICATION

Product name: SPACE INVADER (AEROSOL)

Substance Key: 000704326601

Issued: 23.03.2000

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Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xn Harmful
Xi Irritant

R-phrases(s)

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42 May cause sensitization by inhalation.

Classified as Dangerous Goods for the purpose of transport by road or rail. Refer to relevant regulations for storage and transport requirements.

Class: 2.1 Flammable Gas

Poisons Schedule: N/A - Not Applicable

4. FIRST AID MEASURES

Ingestion: Rinse mouth with water. Give a glass of water to drink. Do NOT induce vomiting. Seek medical advice.

Eye contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Seek immediate medical assistance.

Skin contact: Wipe material from skin with cloth or absorbent paper. Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If swelling, redness, blistering, or irritation occurs seek medical advice. Traces of cured foam (after water contact) is not considered hazardous. Do NOT remove with solvent. Allow to peel off naturally or hasten by soaking in tepid to warm water.

Inhalation: Remove victim from 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 breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible, either on site or at the nearest hospital.

Notes to physician: Treat symptomatically and as for exposure to isocyanates. Effects may be delayed.

5. FIRE-FIGHTING MEASURES

Specific hazards: Foam is normally self-extinguishing. Propellant gas mixture is flammable. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

Fire fighting further advice: Foam is normally self-extinguishing. Propellant gas mixture is flammable. Heating can cause expansion leading to violent rupture of containers. If involved in a fire, propellant gases and

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foam will produce toxic fumes. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus 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

FOR SMALL SPILLS: Quickly wipe up foam, before it cures, with cloth or absorbant paper, avoiding skin contact. Uncured material will dissolve in acetone or acetone based nail polish remover. Cured material can only be removed by abrasion.

FOR LARGE SPILLS: Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Scrape up foam before it cures. Collect and seal in properly labelled containers for disposal. Wash area down with excess water. Cured material can only be removed by abrasion.

7. HANDLING AND STORAGE

Storage: Store in a cool place and out of direct sunlight. Store away from acids, alcohols, oxidizing agents, moisture and sources of heat or ignition. Store aerosol containers upright.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

However, Exposure Standards for constituent:

	TWA STEL		NOTICES		Sen
	ppm	mg/m ³	ppm	mg/m ³	
Isocyanates, all (as NCO)	-	0.02	-	0.07	

As published by the National Occupational Health and Safety Commission (Worksafe Australia).

TWA - the Time-Weighted Average airborne concentrations 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 these concentrations 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. Exposure Standards should not be

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used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering measures: Ensure ventilation is adequate and that air concentrations of component is controlled below quoted Exposure Standards. Use in well ventilated area. Keep containers closed when not in use.

Personal protection equipment: Selleys Safe Handling Code - Intact Cans: GREEN
Avoid skin and eye contact and inhalation of vapour or spray. Use with adequate ventilation. Wear clean overalls, safety boots, general purpose gloves (PVC) and safety spectacles. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Selleys Safe Handling Code - Leaking Cans: BLUE
Avoid skin and eye contact and inhalation of vapour or spray. 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 storing or re-using.
If risk of inhalation of high concentrations of vapour or spray exists, wear combined organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Product sprays from can as a thick, honey coloured foam.

Solubility: Insoluble in water. Uncured product is soluble in some organic solvents.

Specific Gravity (20 C)	: 1.13	Melting Point (C)	: N App
Rel Vapour Density (air=1)	: N Av	Boiling Point (C)	: N Av
Vapour Pressure (20 C)	: N Av	Decomp. Point (C)	: > 200
Flash Point (C)	: N Av	Sublimation Point	: N App
Flammability Limits (%)	: N Av	pH (can contents)	: N App
Autoignition Temp (C)	: 328	Viscosity	: N Av
Solubility in water (g/L)	: N Av	Evaporation Rate	: N Av
Can Pressure (20 C) (kPa)	: 513 (approx) (n-Butyl acetate=1)		
% Volatile by volume	: 10 (propellant)		
Flame Extension (AS 2278)	: 0 mm		
Closed Drum Test (ASTM d3065-72)	: Flammable		
	(Typical values only)		
N Av	= Not available	N App	= Not applicable

10. STABILITY AND REACTIVITY

Stability: Reacts with alcohols, acids, oxidising agents and 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 that may arise if the product is mishandled are:

Acute Effects

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Ingestion: Swallowing can result in nausea and abdominal pain. When moisture is present, further expansion and hardening of the foam occurs, which could give rise to physical obstruction.

Eye contact: An eye irritant.

Skin contact: Contact with skin will result in irritation. Repeated or prolonged skin contact may lead to irritant contact dermatitis. May cause skin sensitisation in sensitive individuals. Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitisers including diisocyanates. (1)

Inhalation: A respiratory irritant and potential respiratory sensitiser; repeated inhalation of vapour or spray mists at levels above the occupational exposure standard could cause respiratory sensitisation. Symptoms may include irritation of the eyes, nose, throat and lungs, possibly with dryness of the throat, tightness of the chest and difficulty breathing. Onset of respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response may develop to even minimal concentrations of MDI in sensitised individuals. (1)

Long Term Effects:

There are reports that chronic exposure to isocyanates by inhalation, may result in a permanent decrease in lung function. (1)

Acute toxicity / Chronic toxicity

No LD50 data available for product, however, based on information available on polymeric MDI products; (1)

Oral LD50(rat): >5000 mg/kg.

Dermal LD50(rabbit): >5000 mg/kg.

Inhalation LC50(rat): 490 mg/kg (respirable aerosol).

Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6mg/m³) was there a significant incidence of a benign tumour of the lung (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 the tumours were not different from the controls. The increased incidence of lung tumours is associated with prolonged respiratory irritation and the concurrent accumulation of 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 in 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 extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not 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.

Inhalation LC50(rat): 178 mg/m³.

EYE (rabbit): 100 ug - Draize - MILD.

Respiratory hypersensitivity in guinea pigs has resulted from dermal exposure to MDI.

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12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Refer to State Land Waste Management Authority. Do not puncture or burn can when empty; contents are under pressure. If aerosol can develops a leak, allow to fully discharge before disposal. Cured foam is considered non-hazardous. Normally suitable for disposal at approved land waste site.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as Dangerous Goods for the purpose of transport by road or rail. Refer to relevant regulations for storage and transport requirements.

UN-No: 1950
Class: 2.1 Flammable Gas
Hazchem code: 2Y Hazchem Code
EPG: 2D1

Proper Shipping Name: AEROSOLS (ROAD & RAIL; IMDG); AEROSOLS, FLAMMABLE (IATA)

Segregation Dangerous Goods:

Not to be loaded with explosives (Class 1), flammable liquids (Class 3), if both are in bulk, flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN-No: 1950
Class: 2.1 Flammable Gas

Proper Shipping Name: AEROSOLS (ROAD & RAIL; IMDG); AEROSOLS, FLAMMABLE (IATA)

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN-No: 1950
Class: 2.1 Flammable Gas

Proper Shipping Name: AEROSOLS (ROAD & RAIL; IMDG); AEROSOLS, FLAMMABLE (IATA)

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15. REGULATORY INFORMATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xn Harmful
Xi Irritant

R-phrase(s)

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42 May cause sensitization by inhalation.

S-phrase(s)

S 2 Keep out of reach of children.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable gloves and eye/face protection.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

Poisons Schedule (Aust)/Toxic Substance (NZ): N/A - Not Applicable

16. OTHER INFORMATION

Literary reference

(1) Material Safety Data Sheet - MDI; CDS# 01152

Orica Australia Pty Ltd; 05/98

This Material Safety Data Sheet has been prepared by SHE Pacific Pty Ltd on behalf of Orica Ltd and its subsidiary companies.

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For further issues of this sheet or other product information contact

Selleys Pty Limited Customer Service on:

Phone: 1300 555 205 (Australia wide)

Fax: 1300 555 305 (Australia wide)

Reason(s) For Issue: Change in Dangerous Goods Requirements.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

For further copies of this sheet or other product information contact

Selleys Pty Limited Customer Service.

Phone: 1300 555 205 (Australia wide)

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Fax: 1300 555 305 (Australia wide)

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Orica Limited and its subsidiaries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.