

Material Safety Data Sheet



Hazardous Substance, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Bostik Expanda Foam**

Synonyms:

Bostik Expanda Foam, 350 gm
Bostik Expanda Foam, 580 gm

Mancode

267414
267864

Recommended use: Used for sealing and gluing.

Supplier: Bostik Australia Pty Ltd
ABN: 79 003 893 838
Street Address: 51-71 High Street
Thomastown VIC 3074
Australia
Telephone: +613 9279-9333
Facsimile: +613 9279-9342

Emergency telephone number: 1800 033 111

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of NOHSC Australia.

Hazard Category:

Xn Harmful
Xi Irritant

Risk Phrase(s):

R20: Harmful by inhalation.
R36/37/38: Irritating to eyes, respiratory system and skin.
R42/43: May cause sensitisation by inhalation and skin contact.

Safety Phrase(s)

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of soapsuds.
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 the label whenever possible).

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

Class: 2.1 Flammable Gas

Poisons Schedule (Aust): Not applicable



3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Diphenylmethane 4,4' di-isocyanate (MDI) isomers and homologues, blend of	101-68-8 & 9016-87-9	40-48%
Propan / butan / dimethylether	74-98-6 / 106-97-8 / 115-10-6	<20%
Non-hazardous ingredients	-	to 100%
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766). Get to a doctor or hospital quickly.

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 a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Skin contact: If skin or hair contact occurs, immediately remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a Doctor; or for 15 minutes and transport to Doctor or Hospital.

Eye contact: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically. Effects may be delayed. Following severe exposures the patient should be kept under medical supervision for at least 48 hours.

5. FIRE-FIGHTING MEASURES

Specific hazards: Flammable gas. May form flammable vapour mixtures with air. Avoid all ignition sources. 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: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. On burning may emit toxic fumes, including those of carbon oxides, nitrogen oxides, isocyanate vapours and hydrogen cyanide. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Hazchem Code: 4W

Suitable extinguishing media: If material is involved in a fire use foam, dry agent (carbon dioxide, dry chemical powder). Reaction between water and hot isocyanate may be vigorous.



6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

1. Wear protective equipment to prevent skin and eye contamination.
2. Treat spillage with solid or liquid decontaminant, leave to react for 10 minutes.
3. Remove and dispose of residues.

LARGE SPILLS

1. Clear area of all unprotected personnel.
2. Wear full protective equipment to prevent skin and eye contamination and the inhalation of vapours, including air-supplied mask, PVC boots and splash suit.
3. Contain - prevent run off into drains and waterways. Cover with wet soil, wet sand or solid decontaminant.
4. Let the material react for 10 minutes.
5. Shovel into open-top drums for further decontamination, if necessary.
6. Wash area down with excess water and inspect.
7. Test the atmosphere for MDI vapour to ensure safe-working conditions prevail prior to re-entry into contaminated area.

The composition of Liquid and Solid Decontaminants are given in Section 16.

Dangerous Goods – Initial Emergency Response Guide No: 49

7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of vapour.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 2.1 Flammable Gas as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

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

However for:

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

As published by the National Occupational Health & Safety Commission (NOHSC Australia).

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

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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 workday.

`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 too 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.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances [NOHSC: 1005 (1994)]" the following ingredients in this material requires Health Surveillance:

- Isocyanates.

For detailed information see "Guidelines for Health Surveillance [NOHSC: 7039 (1995)]"

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. MDI can only be smelled if the occupational exposure limit has been exceeded considerably. Use with local exhaust ventilation or while wearing air supplied mask. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, FACE SHIELD OR AIR MASK, GLOVES (Long).

Avoid skin and eye contact and inhalation of vapour and aerosols/mists. Wear overalls, chemical goggles or full-face shield (if splashing is possible) and elbow-length impervious gloves. Use with adequate ventilation. If inhalation risk exists wear air-supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from neoprene or butyl rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. Contaminated overalls should be decontaminated in 8% (dilute) ammonia solution for one hour and laundered before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Opaque, light grey liquid (in pressurised bottle) with a hydrocarbon odour.

Solubility:	Insoluble in water.
Specific Gravity (20 °C):	1020
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20 °C):	<0.0001 hPa*
Flash Point (°C):	>200*
Flammability Limits (%):	1.5-16 (for condensed gases)
Autoignition Temperature (°C):	1
Melting Point/Range (°C):	N Av
Boiling Point/Range (°C):	>200*
Decomposition Point (°C):	N Av

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pH: N Av

*Value for MDI

(Typical values only - consult specification sheet)
N Av = Not available N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: This material is stable when stored and used as directed.

Conditions to avoid: Avoid temperatures above 50°C.

Incompatible Materials: Incompatible with active hydrogen including water, strong oxidizers.

Hazardous decomposition products: Carbon oxides, nitrogen oxides, isocyanate vapours and hydrogen cyanide.

Hazardous reactions: Reaction between water and hot isocyanate may be vigorous.

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:

Acute Effects

Inhalation: A respiratory irritant and potential respiratory sensitizer; repeated inhalation of vapour or aerosol 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 in 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.

Skin contact: Contact with skin will result in moderate irritation. Repeated or prolonged contact may cause skin sensitisation. Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitizers including diisocyanates. These results emphasise the need for protective clothing including gloves to be worn when handling these chemicals or in maintenance work.

Eye contact: Both vapour and liquid are eye irritants.

Ingestion: Swallowing may result in irritation of the gastrointestinal tract.

Long Term Effects: There are reports that chronic exposure by inhalation may result in a permanent decrease in lung function.

Acute toxicity / Chronic toxicity

No LD50 data available for the product.



12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

UN No: 1950
Dangerous Goods Class: 2.1
Packing Group: Not allocated.
Hazchem Code: 4W
Emergency Response Guide No: 49

Proper Shipping Name: AEROSOLS

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
Dangerous Goods Class: 2.1
Packing Group: Not allocated.

Proper Shipping Name: AEROSOLS

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
Dangerous Goods Class: 2.1
Packing Group: Not allocated.

Proper Shipping Name: AEROSOLS



15. REGULATORY INFORMATION

Poisons Schedule (Aust): Not applicable.

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

16. OTHER INFORMATION

Literary reference

LIQUID MDI DECONTAMINANTS (Note: Decontaminant 2 reacts slower with MDI but is more environmentally friendly than Decontaminant 1)

Decontaminant 1:

- Water 90%
- Concentrated sodium hydroxide solution 8%
- Liquid detergent 2%

Decontaminant 2:

- Water 90-95%
- Sodium carbonate 5-10%
- Liquid detergent 0.2-0.5%

Note Decontaminant 2 reacts slower with MDI but is more environmentally friendly than Decontaminant 1.

Solid MDI Decontaminants

- May use sand, sawdust, Newsorb.

This Material Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd on behalf of its client.

Reason(s) For Issue: Change to Product Weight 290g – 350g

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

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 Bostik Findley Australia Pty Ltd 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.