



## Hazardous Substance, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Bostik 1820 & 1821 Adhesive**

Synonyms:	Mancode
Bostik 1820 Clear Adhesive, 20 Litres	314315
Bostik 1820 Clear Adhesive, 200 Litres	314307
Bostik 1821 Blue Adhesive, 20 Litres	314331
Bostik 1821 Blue Adhesive, 200 Litres	314323

**Recommended use:** A sprayable solvent-based adhesive for bonding various insulating materials.

**Supplier:** Bostik Australia Pty Ltd  
**ABN:** 79 003 893 838  
**Street Address:** 51-71 High Street  
Thomastown VIC 3074  
Australia  
**Telephone:** +613 9179-9333  
**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

**Risk Phrase(s):**

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
Repr. Cat. 3. R62: Possible risk of impaired fertility.  
R65: Harmful: May cause lung damage if swallowed.

**Safety Phrase(s)**

S23: Do not breathe vapour.  
S24/25: Avoid contact with skin and eyes.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S38: In case of insufficient ventilation, wear suitable respiratory equipment.  
S62: If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

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

**Class:** 3 Flammable Liquid

**Poisons Schedule (Aust):** S5

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Naphtha (petroleum), hydrotreated light	64742-49-0	30-60%
Solvent naphtha (petroleum), light aliphatic	64742-89-8	10-30%
n-Hexane	110-54-3	5-10%
Non-hazardous ingredients	-	Balance
		100%

### 4. FIRST AID MEASURES

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

**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:** For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Immediately 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 immediate medical advice.

**Notes to physician:** Treat symptomatically. Effects may be delayed. Delayed pulmonary oedema may result.

### 5. FIRE-FIGHTING MEASURES

**Specific hazards:** Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. 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. Keep containers cool with water spray. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** 3[Y]E.



**Suitable extinguishing media:** If material is involved in a fire use foam, dry agent (carbon dioxide, dry chemical powder).

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No: 14**

## 7. HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

**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 3 Flammable Liquid as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison S5 and must be stored, maintained and used 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 <sup>3</sup>	ppm	mg/m <sup>3</sup>		
n-Hexane	50	176	-	-	-	-

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.

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 ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from nitrile 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Clear and blue liquid with solvent odour.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20°C):</b>	0.75
<b>Relative Vapour Density (air=1):</b>	>1
<b>Vapour Pressure (20°C):</b>	26.1 kPa*
<b>Flash Point (°C):</b>	<0
<b>Flammability Limits (%):</b>	LEL-1.1; UEL-7.4*
<b>Autoignition Temperature (°C):</b>	>200*
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	55-62*
<b>pH:</b>	N App

\* values for naphtha (petroleum), hydrotreated light  
(Typical values only - consult specification sheet)  
N Av = Not available                      N App = Not applicable

## 10. STABILITY AND REACTIVITY

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

**Conditions to avoid:** No information available.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No information available.

## 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:** Material is irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

**Skin contact:** Contact with skin will result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

**Eye contact:** May be an eye irritant.

**Ingestion:** Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications. Aspiration pneumonia (inflammation of the lung) may result.

**Long Term Effects:** No information available for product.

### Acute toxicity / Chronic toxicity

No LD50 data available for the product. However, for the constituent:

n-Hexane

Oral LD50 (rat): 15-30 mg/kg

Toxicological data suggest that methyl ethyl ketone interacts with and enhances the neurotoxicity of n-hexane in the body. n-Hexane is metabolised to the neurotoxic metabolites 2,5-hexanedione and 2,5-hexanediol.

Exposure to n-hexane air concentrations varying from as little as 30 up to 2,500 ppm has been reported to result in clinically overt neuropathy. A rapid onset may occur particularly if exposure has been to high air concentrations for periods in excess of eight hours per day, in most cases a gradual onset has been noted.

Cases of peripheral neuropathy have been reported amongst Japanese sandal workers and Taiwanese press proofers exposed to n-hexane levels of approximately 50 and 100 ppm respectively for periods in excess of 8 hours per day.

Several cross sectional studies have independently reported mild sub-clinical effects in workers exposed to 20-100 ppm n-hexane. No clear cases of clinically overt peripheral neuropathy were identified in any of these studies at exposures of less than 100ppm n-hexane.



## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways. No data available for the product. However, for the constituent:

n-Hexane

Water pollution factors:

BOD (25/35 C): 2.49

ThOD: 3.52

Biological effects:

Fish: goldfish: LD50 (24 Hr): 4 mg/L

## 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.

<b>UN No:</b>	1133
<b>Dangerous Goods Class:</b>	3
<b>Packing Group:</b>	II
<b>Hazchem Code:</b>	3[Y]E
<b>Emergency Response Guide No:</b>	14

**Proper Shipping Name:** ADHESIVES containing flammable liquid.

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), 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.

<b>UN No:</b>	1133
<b>Dangerous Goods Class:</b>	3
<b>Packing Group:</b>	II

**Proper Shipping Name:** ADHESIVES containing flammable liquid.

### AIR TRANSPORT

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

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**UN No:** 1133  
**Dangerous Goods Class:** 3  
**Packing Group:** II

**Proper Shipping Name:** ADHESIVES containing flammable liquid.

## 15. REGULATORY INFORMATION

**Poisons Schedule (Aust):** S5

## 16. OTHER INFORMATION

### Literary reference

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

Reason(s) For Issue: Change in Hazardous Substance Classification

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 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.