

1 IDENTIFICATION OF THE PRODUCT AND OF THE SUPPLIER

Product Name	BOSCODUR NO. 10
Hazard Statement	Classified as Hazardous according to HSNO in New Zealand. Not classified as a Dangerous Good according to NZS5433:1999 Transport of Dangerous Goods on Land.
Recommended Use	Boscodur No. 10 is a cross-linking agent for Bostik polyurethane, nitrile and polychloroprene adhesives.
Supplier	Bostik New Zealand Limited
Street Address	19 Eastern Hutt Road, Wingate, Lower Hutt, New Zealand
Telephone	++64 4 567 5119
Facsimile	++64 4 567 5412
Website	www.bostik.co.nz
Emergency Telephone Number	National Poisons Centre 0800 POISON or 0800 764 766
Emergency Response	In New Zealand 0800 CHEMCALL or 0800 243 622 In Australia 1800 033 111 Globally ++64 3 353 0199
Date first prepared	25 July 2007

2 HAZARDS IDENTIFICATION

Hazard Statement Danger

Precautions Causes severe eye irritation and mild skin irritation.

HSNO Classifications

- 6.1D Harmful if swallowed or inhaled
- 6.3A Causes skin irritation
- 6.4A Causes severe eye irritation
- 6.5A May cause allergic or asthmatic symptoms or breathing difficulties if inhaled
- 6.7B Suspected of causing cancer
- 6.9B May cause damage to organs through prolonged or repeated exposure

Note: Boscodur No. 10 is used as a cross-linking agent for some Bostik New Zealand Limited adhesives. When mixed in the correct mix ratio as specified on the Technical Data Sheet for the adhesive, the hazardous material (Polymeric Diphenylmethane Diisocyanate, also known as polymeric MDI) in the Boscodur No. 10 reacts with the adhesive to form other non-hazardous chemicals. After approximately one hour the hazardous MDI will no longer be present, as it will have been consumed in this reaction.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS	Proportion
Polymeric Diphenylmethane Diisocyanate (polymeric MDI)	9016-87-9	High
4,4' -Methylenediphenyl diisocyanate (MDI)	101-68-8	Medium

High = >60% Medium = 10% - 60% Low = 1% - 10% Very Low = < 1%

4 FIRST AID MEASURES

If poisoning occurs, contact the National Poison Centre (New Zealand 0800 POISON or 0800 764 766).

First Aid**Inhalation**

Due to the low volatility of the MDI, this is an unlikely route of exposure at normal ambient temperature. However certain operations may generate vapour or mist concentrations sufficient to cause respiratory irritation. These operations include heating and spraying.

If exposed, remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Skin Contact

Immediately wash skin with warm soapy water, followed by cooking oil. Remove contaminated clothing while washing. Do not scrub. If swelling, redness, blistering or irritation occurs, get medical assistance. Wash clothing before reuse.

Eye Contact

Immediately hold open and flood with water for at least 15 minutes. Eyelids to be held open. Get medical advice.

Ingestion

Low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Rinse mouth with water. Get medical advice immediately. Do NOT give anything to drink. Do NOT induce vomiting because of risk of aspiration. Never give anything by the mouth to an unconscious patient. Watch for toxic effects.

Advice to Physician

Treat symptomatically, expect possible asthma-like symptoms including pulmonary oedema. Effects may be delayed.

5 FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Type of Hazard	Not flammable
HAZCHEM Code	Not applicable
Fire Hazard Properties	Unknown due to the complex nature of this material. Fumes from complete or incomplete combustion of this material may include carbon dioxide, carbon monoxide, water vapour, oxides of nitrogen, isocyanates, hydrogen cyanide or a wide variety of innocuous or toxic fumes. Dense smoke is produced when product burns.
Extinguishing Media	Foam, dry chemical, carbon dioxide, water spray only
Unsuitable Extinguishing Media	Do not use a water jet.
Precautions for Firefighters	Wear full protective equipment, including self contained breathing apparatus. Product reacts with water, possibly violently in a fire situation.
Additional Advice	Keep adjacent containers cool by spraying with water.

6 ACCIDENTAL RELEASE MEASURES

Small Spills	Avoid accidents and clean up immediately. Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (rag or paper towels). Collect and seal in properly labelled containers or drums for disposal or recycling. Neutralise by washing arear with a solution of 10% Sodium Carbonate in water, with added detergent.
Large Spills	Consider evacuation of area and/or site. Alert Emergency Services if required. Slippery when spilt. Avoid accidents and clean up immediately. Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours by wearing appropriate respirator. Contain spill to prevent run off into drains and waterways. Use absorbent (rags, soil, sand, or other inert material). Collect and seal in properly labelled containers or drums for disposal or recycling. See Disposal section of this SDS for further details.

7 HANDLING AND STORAGE

Handling	Avoid breathing of or contact with material. Use only in well ventilated areas. Wear the appropriate personal protection equipment as specified in this SDS to prevent eye and skin contact. Wash thoroughly after handling.
Storage	Store in a cool (24°C - 41°C) dry, well place and out of direct sunlight. This is a highly reactive material. Store only in the original container. Keep container tightly closed when not in use. Store away from any incompatible materials as defined in Section 10 of this SDS. Do not store product if contaminated with water, as reaction may cause dangerous pressure build-up in sealed containers.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Workplace Exposure Guidelines**
Substance**WES-TWA****WES-STEL**

Polymeric Diphenylmethane Diisocyanate

0.02 mg/m³0.07 mg/m³**Engineering Controls**

Use in a well ventilated area only. Keep containers in a well ventilated area. Local exhaust ventilation system should be designed to move the air away from the source of the vapour and the people working in the area. Local exhaust ventilation may be necessary for some operations, especially heating and spraying of the material.

Personal Protection Equipment

Avoid fume inhalation. Wear organic vapour respirator, especially if working in a poorly ventilated area. Selection of the correct cartridge is essential. Avoid skin contact. Avoid repeated and prolonged skin contact. Wear overalls or similar protective clothing. Wear chemically resistant gloves, and enclosed footwear. Avoid eye contact. Wear safety glasses, goggles or appropriate face shield.

9 PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Brown liquid

Odour

Musty

Flash Point °C

> 200°C

Boiling Point °C

> 200°C (decomposes)

Lower & Upper Flammability Limits %

Not applicable

Auto-ignition Temperature °C

Not available

Percent Volatile by weight

Not applicable

Specific Gravity

1.23

Solubility in WaterLow - reacts with water with evolution of CO₂

High = >60% Medium = 10% - 60% Low = 1% - 10% Very Low = < 1%

10 STABILITY AND REACTIVITY**Stability of Substance**

This material is stable when stored and used as directed.

Conditions to Avoid

Avoid temperatures above 41°C and below 24°C. Avoid moisture. as material slowly reacts with water and moisture, releasing carbon dioxide which can cause a pressure build up and eventually rupture of the container.

Incompatible Materials	Strong bases, strong oxidisers, metals, acids, water, alcohols, amines, and ammonia.
Hazardous Decomposition Products	Thermal decomposition is highly dependant on conditions. A complex mixture of airborne solids, liquids and gases, including hydrogen cyanide, carbon monoxide, carbon dioxide, isocyanates and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Hazardous Reactions	Will react with strong bases and water. Can react with itself at temperatures above 160°C.

11 TOXICOLOGICAL INFORMATION

Information given in this Safety Data Sheet is based on the data on the components and the toxicology of similar products.

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

Acute Oral Toxicity	Not toxic, however swallowing can result in nausea and vomiting.
Acute Dermal Toxicity	Not toxic.
Acute Inhalation Toxicity	Certain operations may generate vapour or mist concentrations sufficient to cause respiratory irritation. Such operations include heating or spraying of the material.
Skin Irritation	Contact with skin may result in irritation. Repeated or prolonged skin contact may lead to irritation.
Eye Irritation	Causes severe eye irritation.
Sensitisation (Respiratory & Contact)	Practise very good industrial hygiene to minimise personal exposure to this product, as sensitisation to this product may develop over time. May cause allergic or asthmatic symptoms or breathing difficulties if the vapours or mists are inhaled. May cause allergic skin reaction.
Carcinogenicity	Not expected to be carcinogenic.
Reproductive / Developmental Toxicity	Not expected to cause damage to fertility or the unborn child.
Mutagenicity	Not expected to be mutagenic.
Target Organ Systemic	Suspected of causing damage to organs through prolonged or repeated exposure.

12 ECOLOGICAL INFORMATION**Acute Toxicity****Aquatic**

Not harmful to aquatic life.

Soil

Not ecotoxic in the soil environment.

Terrestrial Vertebrate

Not ecotoxic to terrestrial vertebrates.

Terrestrial Invertebrate

Not ecotoxic to terrestrial invertebrates.

Persistence & degradability

In the aquatic or terrestrial environment, the material reacts with water to form insoluble polyureas which appear to be stable.

Bioaccumulation

The product will not bioaccumulate.

Mobility

In the aquatic or terrestrial environment, the material reacts with water to form insoluble polyureas.

13 DISPOSAL CONSIDERATIONS**Substance Disposal**

Do not let this product enter the environment. Do not dispose of down drains or into local waterways. Recycle or recover whenever possible. Dispose of substance to a hazardous or special waste collection point or through a licensed contractor. Normally suitable for incineration by an approved agent.

Container Disposal

Recycle if possible, or dispose of to a hazardous or special waste collection point.

Local Legislation

Disposal should be in accordance with Hazardous Substances (Disposal) Regulations 2001, and with any other applicable regional and national laws and regulations.

14 TRANSPORT INFORMATION**Land Transport (NZS 5433:1999 Transport of Dangerous Goods on Land)**

Not classified as Dangerous Goods by the criteria of NZS 5433:1999 Transport of Dangerous Goods on Land for transport by road or rail.

Marine Transport (IMDG)

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

Air Transport (IATA)

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

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Environmental Risk Management Authority (ERMA) Group Standard Number:

Additives, process chemicals and raw materials (Toxic 6.7) Group Standard 2006
HSR002512

Hazardous Substances and New Organisms Act (HSNO):

The following are trigger quantities for this substance by itself in a place.

Approved Handler Test Certificate	Not applicable
Tracking	Not applicable

16 OTHER INFORMATION

SDS Revisions Safety Data Sheets are updated at least every 5 years. Obtain the latest version by visiting www.bostik.co.nz.

Reason for Issue SDS review. Update hazard classes and HSR code.

SDS Distribution The information in this document should be made available to all who may handle this product.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use the product in the workplace. Since Bostik New Zealand Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS 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 Bostik New Zealand Limited. 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 available upon request.

Key / Legend

SDS	Safety Data Sheet
HSNO	Hazardous Substances and New Organisms Act 1996
WES-TWA	The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure
WES-STEL	The 15 minute average exposure standard. This applies to any 15 minute period in a 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 WES-TWA; both the short-term and time-weighted average exposures apply.

Disclaimer This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.