



Code	Description	Size	Colour
60050	Toptec Industrial Adhesive	310 ml	Translucent

Recommended use:	Sealant	
HSNO group standard:	HSR002670	
UN number, shipping name and packaging group:	Not Subject	
Supplier contact details:	Soudal Ltd	Freephone: 0800 TOPTEC
	14 Avalon Drive	Phone: (07) 847 5540
	Nawton	Fax: (07) 847 0324
	Hamilton 3200	Email: sales@toptec.co.nz
	New Zealand	Website: www.toptec.co.nz

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

2. Hazards Identification

2.1 Hazardous Substances and New Organisms (HSNO) classification:

Classification	Hazard statements
Acute Inhalation Toxicity Category 4 6.1D	H3332 Harmful if inhaled
Skin Effects Category 2 6.3A	H315 Causes skin irritation
Eye Effects Category 1 6.4A	H319 Causes serious eye irritation
Respiratory sensitisation Category 1 6.5A	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitisation Category 1 6.5B	H317 May cause an allergic skin reaction
STOT-SE Category 1 6.9A	H370 Causes damage to organs through inhalation
STOT-RE Category 1 6.9A	H372 Causes damage to organs through prolonged or repeated inhalation
Respiratory effects Category 3 6.9	H335 May cause respiratory irritation

2.2 Symbols:



2.3 Signal Word:
DANGER

2.4 Precautionary Statements:

- P103 Read label before use.
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P285 In case of inadequate ventilation wear respiratory protection
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace

3. Composition/Information on Ingredients

3.1 Information on the ingredients used in the substance:

Ingredient	CAS No.	Individual HSNO classification	Concentration (%)
aromatic polyisocyanate prepolymer (60%) / diphenylmethane-2,4'-diisocyanate (20%)	99784-49-3 / 5873-54-1	Acute oral toxicity Category 5; Acute Inhalation toxicity Category 2; Skin Effects Category 2; Eye Effects Category 2; Respiratory Sensitisation Category 1; Skin Sensitisation Category 1; STOT- RE Category 1; STOT-SE Category 1	90 – 100
benzenedicarboxylic acid, di-C10-12 branched alkyl esters, C11 rich		Skin Effects Category 2; Chronic aquatic effects Category 3; Soil Toxicity Category 3	1 – 10
Diethylmethylbenzenediamine	68479-98-1	Acute Oral Toxicity Category 4; Acute Dermal Toxicity Category 3; Eye Effects Category 2; STOT – SE Category 1; STOT – RE Category 1; Acute Aquatic Toxicity Category 1; Vertebrate Toxicity Category 2	1 – 10
Ingredients determined to be non-hazardous			balance

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other nonhazardous ingredients are also possible.

4. First Aid Measures

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4.1 Skin or hair contact:

Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

4.2 Eye contact:

Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

4.3 Inhalation:

Remove from contaminated area. Lay patient down. Keep warm and rested. Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be

administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. A physician should be consulted.

4.4 Ingestion:

Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.5 General advice and advice for physicians:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764766 from anywhere in New Zealand (13 1126 in Australia) and is available at all times. Have this SDS or product label with you when you call.

Treat symptomatically.

For sub-chronic and chronic exposures to isocyanates:

This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity. Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts. Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure. Pulmonary symptoms include cough, burning, substernal pain and dyspnoea. Some cross-sensitivity occurs between different isocyanates. Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.

Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids. Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion. Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions. There is no effective therapy for sensitised workers.

[Ellenhorn and Barceloux; Medical Toxicology]

NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.

[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indications of allergic responses, recurrent eczema or sensitisation conditions of the skin should not handle or work with isocyanates. Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

5. Fire-Fighting Measures

5.1 Extinguishing media:

Water spray or fog; dry chemical or CO₂

5.2 Advice for fire-fighters:

Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

5.3 Special hazards due to combustion:

Combustible. Moderate fire hazard when exposed to heat or flame. When heated to high temperatures decomposes rapidly generating vapour which pressures and may then rupture containers with release of flammable and highly toxic isocyanate vapour. Burns with acrid black smoke and poisonous fumes. Combustion yields traces of highly toxic hydrogen cyanide HCN, plus toxic nitrogen oxides NO_x and carbon monoxide.

6. Accidental Release Measures

6.1 Personal precautions:

Clear are of personnel and move upwind, avoid breathing vapour. Wear protective clothing. Impervious gloves and safety glasses. Shut off all possible sources of ignition and increase ventilation. Wipe up.

6.2 Environmental precautions:

Use appropriate containment to avoid environmental contamination.

6.3 Methods for cleaning up:

Absorb and decontaminate. - Completely cover the spill with wet sand, wet earth, vermiculite or other similar absorbent. - Add neutraliser (for suitable formulations: see below) to the adsorbent materials (equal to that of estimated spill pool volume). Intensify contact between spill, absorbent and neutralise by carefully mixing with a rake and allow to react for 15 minutes. Shovel absorbent/decontaminant solution mixture into a steel drum.

Decontaminate surface. - Pour an equal amount of neutraliser solution over contaminated surface. - Scrub area with a stiff bristle brush, using moderate pressure. - Completely cover decontaminant with vermiculite or other similar absorbent. - After 5 minutes, shovel absorbent/decontamination solution mixture into the same steel drum used above. Monitor for residual isocyanate. If surface is decontaminated, proceed to next step. If contamination persists, repeat decontaminate procedure immediately above. Place loosely covered drum (release of carbon dioxide) outside for at least 72 hours. Label waste-containing drum appropriately. Remove waste materials for incineration. Decontaminate and remove personal protective equipment. Return to normal operation. Conduct accident investigation and consider measures to prevent reoccurrence.

6.4 Disposal:

Collect treated spillage. Contact local and regional authorities for further directions.

7. Handling and Storage

7.1 Handling:

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. **DO NOT enter confined spaces until atmosphere has been checked.** Avoid smoking, naked lights or ignition sources.

Avoid contact with incompatible materials. **When handling, DO NOT eat, drink or smoke.** Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

7.2 Storage:

Check that containers are clearly labelled.

8. Exposure Controls/Personal Protection

8.1 Exposure limits:

CAS no.	Substance or ingredient	WES-TWA	WES-STEL
	Polymeric diphenylmethane diisocyanate	0.02 mg/m ³ as -NCO	0.07 mg/m ³ as -NCO

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week. The STEL (Short Term Exposure







Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

8.2 Engineering Controls:

This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Eyewash unit

8.3 Exposure controls:

Control	Protective measure
Eye	Wear safety glasses with side shield or chemical goggles [AS 2919] 
Respiratory	Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to the contaminated area immediately on detecting any odours through the respirator.   odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate. In certain circumstances, personal protection of the individual employee is necessary. Personal protective devices should be regarded as being supplementary to substitution and engineering control and should not be used in preference to them as they do nothing to eliminate the hazard. However, in some situations, minimising exposure to isocyanates by enclosure and ventilation is not possible, and occupational exposure standards may be exceeded, particularly during on-site mixing of paints, spray-painting, foaming and maintenance of machine and ventilation systems. In these situations, air-line respirators or self-contained breathing apparatus complying with the appropriate national standard must be used. Organic vapour respirators with particulate pre- filters and powered, air-purifying respirators are NOT suitable. Personal protective equipment must be appropriately selected, individually fitted and workers trained in their correct use and maintenance. Personal protective equipment must be regularly checked and maintained to ensure that the worker is being protected. Air- line respirators or self-contained breathing apparatus complying with the appropriate national standard should be used during the clean-up of spills and the repair or clean-up of contaminated equipment and similar situations which cause emergency exposures to hazardous atmospheric concentrations of isocyanate.
Skin	Butyl or neoprene gloves are recommended if skin contact or contamination of clothing is likely,    protective clothing should be worn. [AS 2161] Wear protective clothing.

9. Physical and Chemical Properties

9.1 General substance properties:

Property	Details
Appearance	Paste
Odour	Characteristic
pH	No data.
Vapour pressure	No data.
Viscosity	No data.
Boiling Point	No data.
Volatile materials	No data.
Freezing/melting point	No data.
Solubility	No data.
Specific gravity/density	g/ml

Flash point	No data.
Auto-ignition temperature	No data.
Upper and lower flammability limits	Lower - % Upper - %
Corrosiveness	No data.

10. Stability and Reactivity

10.1 Stability:

Stable under normal conditions.

10.2 Conditions to avoid:

Elevated temperatures. Presence of open flame.

10.3 Incompatible materials to avoid:

Avoid oxidising agents (nitrates, oxidising acids, chlorine bleaches, pool chlorine etc) as ignition may result.

10.4 Hazardous decomposition products:

Decomposition may produce toxic fumes of: carbon monoxide (CO), carbon dioxide (CO₂), isocyanates (-NCO), hydrogen cyanide (HCN), and minor amounts of, hydrogen chloride (HCl), phosgene (COCl₂), nitrogen oxides (NO_x), phosphorus oxides (PO_x), other pyrolysis products typical of burning organic material.

11. Toxicological Information

11.1 Summary of Toxicity

11.2 Acute toxicity:

Test	Data and symptoms of exposure
Oral	The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum. The toxicity of phthalates is not excessive due to slow oral absorption and metabolism. Absorption is affected by fat in the diet. Repeated doses can cause cumulative toxic effects, and symptoms include an enlarged liver which often reverses if exposure is maintained. Carbohydrate metabolism is disrupted, and cholesterol and triglyceride levels in the blood falls. In rats, there is also strong evidence of withering of the testicles. Some phthalates can increase the effects of antibiotics, thiamine (vitamin B1) and sulfonamides.
Dermal	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Inhaled	This material can cause eye irritation and damage in some persons.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general

	<p>population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates. [CCTRADE-Bayer, APMF] Isocyanate vapours are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, incoordination, anxiety, depression and paranoia. Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.</p>
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12. Ecological Information

DO NOT discharge into sewer or waterway

Ecology	Ecological data
Aquatic ecotoxicity	No data
Soil ecotoxicity	No data.
Terrestrial vertebrate	No data
Terrestrial invertebrate	No data.
Bioaccumulation	No data
Mobility	No data
Degradability	No data.

13. Disposal Considerations

13.1 Disposal methods:

This product may be disposed of in a landfill provided this product will be kept separated from contact with explosives, oxidisers and ignition sources at all times. This product may be disposed of by burning in an incineration facility. This product may be disposed of by purging. Further details can be provided by local and regional authorities.

13.2 Disposal restrictions:

The product must not be disposed of in a landfill or purged within range of legally located persons and places, where upon ignition, would expose them to more blast pressure and heat radiation that described in regulation 6(3)(b) of the Hazardous Substances (Disposal) Regulations 2001. Burning must be managed to the performance requirements of regulation 6(3)(b) of the Hazardous Substances (Disposal) Regulations 2001. Disposal of this product by landfill, burning or purging must not exceed any relevant exposure limits and/or environmental exposure limits set for the substance or any of its components. Further details can be provided by local and regional authorities.

13.3 Special precautions for disposal:

No data.

14. Transport Information

NOT REGULATED

15. Regulatory Information

15.1 HSNO approval number and Group Standard:

HSR002670 Surface Coatings and Colourants (subsidiary hazard)

15.2 Group Standard conditions and other regulations:

Condition	Requirement
SDS	Safety data sheet must be available to a person handling the substance within 10 minutes.
Emergency plan	Required
Approved handler	Class 2.1.2A required when quantities exceed 3000L water capacity
Tracking	Not applicable
Bunding and secondary containment	Must be in place for all liquid materials
Signage	Required when quantities exceed 3000L water capacity
Test certificate	Required when quantities exceed 3000Lt water capacity, (either open or closed containers)
Hazardous Atmosphere zone	Not required
Fire extinguisher	2x required

aromatic polyisocyanate prepolymer (60%) / diphenylmethane-2,4'-diisocyanate (20%) (CAS) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Hazardous Substances & New Organisms (HSNO Act) Classification of Chemicals
- New Zealand Workplace Exposure Standards (WES)

benzenedicarboxylic acid, di-C10-12 branched alkyl esters, C11 rich (CAS) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)

Diethylmethylbenzenediamine (CAS 68479-98-1) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act – Classification of Chemicals

National Inventories

Australia	AICS	Y
Canada	DSL	Y
Canada	NDSL	N
China	IECSC	Y
Europe	EINEC/ELINCS/NLP	Y
Japan	ENCS	N
Korea	KECI	Y
New Zealand	NZIoC	Y
Philippines	PICCS	Y
USA	TSCA	Y

Y = All ingredients are on the inventory

16. Other Information

16.1 Revision summary:

March 2017

Initial preparation

16.2 Abbreviations:

Abbreviation	Description
CAS number	Number assigned to chemical in the Chemical Abstracts Service registry
HAZCHEM code	Code used by fire-fighters to determine correct method of action in the case of fire
HSNO	Hazardous Substances and New Organisms (Act)
ICAO Technical Instructions	International Civil Aviation Organization Technical Instructions
IMDG code	International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO)
LC50	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD50	Lethal dose 50% - dose fatal to 50% of the tested population
NZS 5433	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
SDS	Safety data sheet
STEL	Short term exposure limit
TWA	Time weighted average (typically measured as 8 hours)
UN number	United nations number
WES	Workplace exposure standard

16.3 References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID). www.epa.govt.nz

Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 7th Edition. www.mbie.govt.nz

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.

This SDS was prepared by Collievale Enterprises in accord with the EPA "Code of Practice for the Preparation of Safety Data Sheets" [HSNOCOP 8-1 (2006)]
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End of MSDS