



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Dinitrol 840 A**
Product Use: Adhesives, sealants, Curing agent
Restriction of Use: Refer to Section 15

New Zealand Supplier: **Auto Body Equipment**
Address: 17 The Boulevard
Te Rapa, Hamilton, 3200
New Zealand

Telephone: +64 7 849 3514
Email: office@abe.co.nz
Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 5 December 2022

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Surface Coatings and Colourants (Carcinogenic) – HSR002679

Pictograms:



Irritant Chronic

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H332	Harmful if inhaled.
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Respiratory sensitisation Cat. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
Carcinogenicity Cat. 2	H351	Suspected of causing cancer.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
specific target organ toxicity – single exposure Cat. 3 respiratory tract irritation	H335	May cause respiratory irritation.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P362	Take off contaminated clothing and wash before re-use.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P341	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Diphenylmethanediisocyanate, isomers and homologues	40 - <45	9016-87-9
MDI-based polyisocyanate prepolymer	25 - <30	-
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	10 - <15	101-68-8
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	5 - <10	5873-54-1
3-Glycidoxypropyltrimethoxysilane	1- <5	2530-83-8
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	<1	2536-05-2

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

If on Skin	After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
If Swallowed	Do NOT induce vomiting. Rinse mouth. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Immediately call a POISON CENTER or doctor/physician.
If Inhaled	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. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Not applicable.

Inhalation: Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Skin: Causes skin irritation. May cause an allergic skin reaction.

Eye: Causes serious eye irritation.

Chronic: Suspected of causing cancer.

May cause damage to organs through prolonged or repeated exposure.

Notes to Doctor: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from products	Formation of: Pyrolysis products, toxic; Nitrogen oxides (NOx).; Hydrocyanic acid (hydrocyanic acid).
Suitable Extinguishing media	Carbon dioxide (CO ₂), Extinguishing powder, alcohol resistant foam. Do not use full water jet.
Precautions for firefighters and special protective clothing	Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel. Avoid contact with skin, eyes and clothes. Special danger of slipping by leaking/spilling product. Provide adequate ventilation.

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.

Prevent spread over a wide area (e.g. by containment or oil barriers). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Dispose of waste according to the applicable local regulations detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.

Product Name: Dinitrol 840 A
Date of SDS: 5 December 2022

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
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- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Provide adequate ventilation as well as local exhaustion at critical locations.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Keep away from food, drink and animal feeding stuffs.
- Protect skin by using skin protective cream.
- Take off contaminated clothing and wash it before reuse.
- Keep away from food, drink and animal feeding stuffs.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed in a cool place.
- Do not keep the container sealed. Keep container dry.
- Do not store together with: Water, Oxidising agent.
- Keep away from food, drink and animal feeding stuffs.
- Keep the packing dry and well-sealed to prevent contamination and absorption of humidity. storage temperature: <0°C - < 50°C.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Diphenylmethane diisocyanate [101-68-8]	0.02	-	0.07	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the 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 the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

DNEL Values:

CAS No	Substance	Exposure route	Effect	Value
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate			
	worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³
	worker DNEL, acute	inhalation	systemic	0,10 mg/m ³
	worker DNEL, long-term	inhalation	local	0,05 mg/m ³
	worker DNEL, acute	inhalation	local	0,10 mg/m ³
	worker DNEL, acute	dermal	systemic	50,0 mg/kg
	worker DNEL, acute	dermal	local	28,7 mg/person/d
	Consumer DNEL, long-term	inhalation	systemic	0,025 mg/m ³
	Consumer DNEL, acute	inhalation	systemic	0,05 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,025 mg/m ³
	Consumer DNEL, acute	inhalation	local	0,05 mg/m ³

Consumer DNEL, acute	dermal	systemic	25,0 mg/kg
Consumer DNEL, acute	dermal	local	17,2 mg/person/d
Consumer DNEL, acute	oral	systemic	20,0 mg/kg
2530-83-8 3-Glycidoxypropyltrimethoxysilane			
worker DNEL, long-term	inhalation	systemic	147 mg/m ³
worker DNEL, long-term	dermal	systemic	21 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	43,5 mg/m ³
Consumer DNEL, long-term	dermal	systemic	12,5 mg/kg
Consumer DNEL, long-term	oral	systemic	12,5 mg/kg
2536-05-2 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate			
worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³
worker DNEL, acute	inhalation	systemic	0,10 mg/m ³
worker DNEL, long-term	inhalation	local	0,05 mg/m ³
worker DNEL, acute	inhalation	local	0,10 mg/m ³
worker DNEL, acute	dermal	systemic	50,0 mg/kg
worker DNEL, acute	dermal	local	28,7 mg/person/d
Consumer DNEL, long-term	inhalation	systemic	0,025 mg/m ³
Consumer DNEL, acute	inhalation	systemic	0,05 mg/m ³
Consumer DNEL, long-term	inhalation	local	0,025 mg/m ³
Consumer DNEL, acute	inhalation	local	0,05 mg/m ³
Consumer DNEL, acute	dermal	systemic	25,0 mg/kg
Consumer DNEL, acute	dermal	local	17,2 mg/person/d

PNEL Values:

CAS No	Substance	Value
Environmental compartment		Value
5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate		
Freshwater		1,0 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1,0 mg/l
Soil		1,0 mg/kg
2530-83-8 3-Glycidoxypropyltrimethoxysilane		
Freshwater		1,0 mg/l
Marine water		0,1 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		0,36 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,14 mg/kg
2536-05-2 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate		
Freshwater		1,0 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1,0 mg/l
Soil		1,0 mg/kg

Engineering Controls

Provide adequate ventilation.

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Product Name: Dinitrol 840 A
Date of SDS: 5 December 2022

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If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Personal Protection Equipment



Eyes	Eye glasses with side protection (EN 166).
Skin	<p>Tested protective gloves must be worn (EN ISO 374): NBR (Nitrile rubber), Breakthrough time: 480 min. Butyl caoutchouc (butyl rubber), Breakthrough time: 480 min. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Protective gloves have to be replaced at the first sign of deterioration. Protect skin by using skin protective cream. Wear suitable protective clothing.</p>
Respiratory	Work in well-ventilated zones or use proper respiratory protection. gas filtering equipment (EN 141)., Filter material/medium: A/P2.

Section 9 Physical and Chemical Properties

Form	Liquid
Colour	Brown
Odour	Characteristic
Odour Threshold	Not available
pH @20°C	Not available
Boiling Point	>300°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	>200°C
Flammability	Non flammable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	Not available
Density@ 20°C	1.17 g/cm ³
Specific Gravity	Not available
Water Solubility	The study does not need to be conducted because the substance is known to be insoluble in water.
Partition Coefficient:	Not available
Ignition Temperature	>400°C
Decomposition Temperature	Not available
Kinematic /Dynamic @23°C	500 -1000 mPa·s
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Reacts with : Alcohol; Amines; Alkali (lye); Acids
Conditions to Avoid	Keep away from heat. Protect from moisture.
Incompatible Materials	Keep away from: Alcohol; Amines; Alkali (lye); Acids
Hazardous Decomposition Products	No data available.

Section 11 Toxicological Information
Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. ATE (inhalation vapour) 11,29 mg/l; ATE (inhalation dust/mist) 1,540 mg/l
Eye	Causes serious eye irritation.
Skin	Causes skin irritation. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Suspected of causing cancer.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Acute Toxicity for components:

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues				
	oral	LD50 mg/kg	>10000	Rat	
	dermal	LD50 mg/kg	>9400	Rabbit	
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		
	MDI-based polyisocyanate prepolymer				
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate				
	oral	LD50 mg/kg	9200	Rat	GESTIS
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate				
	oral	LD50 mg/kg	>2000	Rat	
	dermal	LD50 mg/kg	>9400	Rabbit	
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		
2530-83-8	3-Glycidoxypropyltrimethoxysilane				
	oral	LD50 mg/kg	8025	Rat	
	dermal	LD50 mg/kg	4250	Rabbit	
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate				
	oral	LD50 mg/kg	>2000	Rat	
	dermal	LD50 mg/kg	>9400	Rabbit	

	inhalation vapour	ATE	11 mg/l			
	inhalation dust/mist	ATE	1,5 mg/l			

Section 12. Ecotoxicological Information

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute bacteria toxicity	(EC50 >100 mg/l)	3 h			
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate					
	Acute fish toxicity	LC50 55 mg/l	96 h	Cyprinus carpio (Common Carp)		
2530-83-8	3-Glycidoxypropyltrimethoxysilane					
	Acute fish toxicity	LC50 55 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute algae toxicity	ErC50 350 mg/l	96 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 324 mg/l	48 h	Daphnia magna (Big water flea)		
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50 >1640 mg/l	72 h	Scenedesmus subspicatus		

Persistence and Degradability:

The product has not been tested.

Bioaccumulative Potential:

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
2530-83-8	3-Glycidoxypropyltrimethoxysilane	0,5

BCF

CAS No	Chemical name	BCF	Species
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	<14	42d, OECD 305C

Mobility in Soil:

The product has not been tested.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Section 13. Disposal Considerations

Disposal Method:

Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste - "Carcinogen" and that the label also has the Chronic Pictogram, and the business name, address, and phone number.

Precautions or methods to avoid: Must not be disposed together with household garbage. Avoid release to the environment.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: Surface Coatings and Colourants (Carcinogenic) – HSR002679

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	1000L
Secondary Containment	1000L
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage

(including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact Auto Body Equipment, if further information is required.

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