

Dunlop Butynol

Ardex (Ardex NZ)

Chemwatch: 5523-90

Version No: 2.1 Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017 Issue Date: 28/01/2022 Print Date: 30/01/2022 S.GHS.NZL.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	Dunlop Butynol
Chemical Name	Not Applicable
Synonyms	polyisobutylene polyisoprene rubber black membrane; sheet; roll
Chemical formula	Not Applicable
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Used as waterproofing membrane.
ails of the supplier of the sa	afety data sheet
Registered company name	Ardex (Ardex NZ)
Address	32 Lane Street Woolston Christchurch New Zealand
Telephone	+64 3384 3029
Fax	+64 3384 9779
Website	www.ardex.co.nz
Email	info@ardexnz.com

Emergency telephone number

Association / Organisation	Ardex (Ardex NZ)	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+64 3 373 6900	+64 800 700 112
Other emergency telephone numbers	0800 764 766 (NZ NPC)	+61 2 9186 1132

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

Not considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

ChemWatch Hazard Ratings

	Min	Max	
Flammability	1		
Toxicity	1		0 = Minimum
Body Contact	1	1	1 = Low
Reactivity	0		2 = Moderate
Chronic	0	1	3 = High 4 = Extreme

Classification ^[1]	Not Applicable
Determined by Chemwatch using GHS/HSNO criteria	Not Available

Dunlop Butynol

 Hazard pictogram(s)
 Not Applicable

 Signal word
 Not Applicable

 Hazard statement(s) Not Applicable
 Image: Comparison of the comparison o

Precautionary statement(s) Prevention Not Applicable

Precautionary statement(s) Response Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1333-86-4	20-45	carbon black
9003-27-4	NotSpec	isobutylene homopolymer
9003-31-0	NotSpec	isoprene homopolymer
Not Available	NotSpec	rubber accelerators
Not Available	NotSpec vulcanising agents	
Legend:	gend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOEL Vs available	

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	Generally not applicable.
Skin Contact	 Generally not applicable. If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses 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.
Ingestion	Not considered a normal route of entry. Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

There is no restriction on the type of extinguisher which may be used.

Special hazards arising from the substrate or mixture

Special nazaros ansing from the substrate of mixture	
Fire Incompatibility	None known
dvice for firefighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. Slight hazard when exposed to heat, flame and oxidisers.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).
	Continued.

Combustion products include:
carbon dioxide (CO2)
other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Secure load if safe to do so. Bundle/collect recoverable product. Collect remaining material in containers with covers for disposal.
Major Spills	 Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Wear physical protective gloves e.g. Leather.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Atmosphere should be checked against exposure standards Avoid contact with incompatible materials.
Other information	▶ Keep dry

Conditions for safe storage, including any incompatibilities

Suitable container	 Check that containers are clearly labelled No restriction on the type of containers.
Storage incompatibility	Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	carbon black	Carbon black	3 mg/m3	Not Available	Not Available	6.7B-Suspected carcinogen
New Zealand Workplace Exposure Standards (WES)	isoprene homopolymer	Particulates not otherwise classified	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	isoprene homopolymer	Particulates not otherwise classified respirable dust	3 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	isoprene homopolymer	Diesel Particulate Matter (DPM) as elemental carbon	0.1 mg/m3	Not Available	Not Available	diesel engine exhaust is a confirmed carcinogen

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3	
carbon black	9 mg/m3	99 mg/m3		590 mg/m3	
Ingredient	Original IDLH		Revised IDLH		
carbon black	1.750 mg/m3			Not Available	
	, 0				
isobutylene homopolymer	Not Available		Not Available		
isoprene homopolymer	Not Available		Not Available		

Exposure controls

Appropriate engineering

Personal protection

controls None under normal operating conditions.



Eye and face protection	 No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE: Safety glasses with side shields. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	Wear general protective gloves, eg. light weight rubber gloves. No special equipment required due to the physical form of the product.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: • Overalls. • Barrier cream

Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Eyewash unit.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Black membrane sheet/roll with a slightly pungent odd	our; insoluble in water.	
Physical state	Manufactured	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>63	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (Not Available%)	Not Applicable
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Inhaled	Not normally a hazard due to physical form of product.			
Ingestion	Not normally a hazard due to the physical form of product. The material is a physical irritant to the gastro-intestinal tract			
Skin Contact	Not normally a hazard due to physical form of product.			
Eye	Not normally a hazard due to physical form of product.	Not normally a hazard due to physical form of product.		
Chronic	Primary route of exposure is usually by skin contact with the material As with any chemical product, contact with unprotected bare skin; inhala form, should be avoided by observing good occupational work practice.	As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any		
Dunlop Butynol	TOXICITY	IRRITATION		
Duniop Butynoi	Not Available	Not Available		
	тохісіту	IRRITATION		
carbon black	Dermal (rabbit) LD50: >3000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]		
	Oral (Rat) LD50; >8000 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]		
	тохісіту	IRRITATION		
isobutylene homopolymer	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available		
	Oral (Rat) LD50; >2000 mg/kg ^[1]			
	тохісіту	IRRITATION		
isoprene homopolymer	Not Available	Not Available		
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances			

Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported CARBON BLACK WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Allergy causing activity is due to interactions with proteins. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T **ISOPRENE HOMOPOLYMER** lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. CARBON BLACK & **ISOBUTYLENE** No significant acute toxicological data identified in literature search. **HOMOPOLYMER & ISOPRENE** HOMOPOLYMER Acute Toxicity × Carcinogenicity × Skin Irritation/Corrosion × Reproductivity × Serious Eye Damage/Irritation × STOT - Single Exposure × Respiratory or Skin × × STOT - Repeated Exposure sensitisation Mutagenicity × Aspiration Hazard X

Legend: 🗙

Data either not available or does not fill the criteria for classification
 Data available to make classification

SECTION 12 Ecological information

	Endpoint	Test Duration (hr)	Species	Value	Source
Dunlop Butynol	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
carbon black	NOEC(ECx)	24h	Crustacea	3200mg/l	1
	LC50	96h	Fish	>100mg/l	2
	EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
	EC50	48h	Crustacea	33.076-41.968mg/l	4
	Endpoint	Test Duration (hr)	Species	Value	Source
isobutylene homopolymer	EC50(ECx)	96h	Algae or other aquatic plants	0.009-1.099mg/l	2
	LC50	96h	Fish	0.001-1.19mg/l	2

	EC50 72h Algae or other aquatic plants >19.2mg		9.2mg/l	2		
	EC50	48h	Crustacea	0.0)4mg/l	2
	EC50	96h	Algae or other aquatic plants	0.0)09-1.099mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
isoprene homopolymer	Not Available	Not Available	Not Available		Not Available	Not Available
Legend:	Ecotox databa		Registered Substances - Ecotoxicological Infon uatic Hazard Assessment Data 6. NITE (Japan)			

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isobutylene homopolymer	LOW	LOW
isoprene homopolymer	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation	
isobutylene homopolymer	LOW (LogKOW = 2.2256)	
isoprene homopolymer	LOW (LogKOW = 2.5803)	

Mobility in soil

Ingredient	Mobility
isobutylene homopolymer	LOW (KOC = 35.04)
isoprene homopolymer	LOW (KOC = 67.7)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Not applicable as substance/ material is non hazardous.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
carbon black	Not Available
isobutylene homopolymer	Not Available
isoprene homopolymer	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
carbon black	Not Available
isobutylene homopolymer	Not Available
isoprene homopolymer	Not Available

SECTION 15 Regulatory information

HSR Number	Group Standard	Group Standard		
Not Applicable	Not Applicable			
Please refer to Section 8 of	f the SDS for any applicable tolerable exposure limit or Section	12 for environmental exposure limit.		
carbon black is found on	the following regulatory lists			
Chemical Footprint Project	- Chemicals of High Concern List	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification		
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		of Chemicals		
Monographs		New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification		
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		of Chemicals - Classification Data		
Monographs - Group 2B: Possibly carcinogenic to humans		New Zealand Inventory of Chemicals (NZIoC)		
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)		New Zealand Workplace Exposure Standards (WES)		
New Zealand Approved Ha	zardous Substances with controls			
isobutylene homopolyme	er is found on the following regulatory lists			
New Zealand Inventory of	Chemicals (NZIoC)			
isoprene homopolymer i	s found on the following regulatory lists			
New Zealand Approved Ha	zardous Substances with controls	New Zealand Inventory of Chemicals (NZIoC)		
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals		New Zealand Workplace Exposure Standards (WES)		
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data				
azardous Substance L	ocation			
Subject to the Health and	Safety at Work (Hazardous Substances) Regulations 2017.			
Hazard Class	Quantities			
Not Applicable	Not Applicable			

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (carbon black; isobutylene homopolymer; isoprene homopolymer)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	No (isoprene homopolymer)	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date	28/01/2022
Initial Date	28/01/2022

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit. IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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