



Seam Tape

Ardex Singapore Pte. Ltd

Chemwatch: 8044-20
Version No: 4.1.1.1
Safety Data Sheet

Chemwatch Hazard Alert Code: 2

Issue Date: 03/05/2013
Print Date: 03/11/2016
S.GHS.SGP.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Seam Tape
Synonyms	seam sealing tape
Other means of identification	Not Available

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

Relevant identified uses	Seam and sealing tape.
--------------------------	------------------------

Details of the supplier of the safety data sheet

Registered company name	Ardex Singapore Pte. Ltd
Address	26 Tuas Avenue 4 639376 Singapore
Telephone	+65 68 617 700
Fax	+65 68 623 381
Website	Not Available
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification	Carcinogenicity Category 2
----------------	----------------------------

Label elements

GHS label elements	
--------------------	--

SIGNAL WORD **WARNING**

Hazard statement(s)

H351	Suspected of causing cancer.
------	------------------------------

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
-----------	---

Continued...

Seam Tape

Precautionary statement(s) Storage

P405	Store locked up.
------	------------------

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
------	---

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
		Tape consisting of
9003-27-4	NotSpec.	<u>isobutylene homopolymer</u>
9003-29-6	NotSpec.	<u>2-butene homopolymer - polybutene</u>
25038-36-2	NotSpec.	<u>ethylene/ propylene/ ethyldenenorborene terpolymer</u>
1333-86-4	1-20	<u>carbon black</u>
9010-85-9	NotSpec.	<u>isoprene/ isobutene copolymer (butyl rubber)</u>
1314-13-2	<2	<u>zinc oxide</u>
Not Available	NotSpec.	additives, unregulated
		on a
		polyethylene backing with release surface layer

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	Not normally a hazard due to physical form of product.
Skin Contact	If skin or hair contact occurs: <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. Not normally a hazard due to physical form of product.
Inhalation	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. Not normally a hazard due to physical form of product.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid reaction withamp;44k3
-----------------------------	-----------------------------

Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water courses. ▶ Use fire fighting procedures suitable for surrounding area.
Fire/Explosion Hazard	Combustible NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke. Combustion products include:amp;43cw amp;11a amp;43cv

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	Sweep up. Collect recoverable product into labelled containers for recycling Place in suitable containers for disposal.
Major Spills	Advise emergency services. Control personal contact with the substance, by using protective equipment Collect recoverable product into labelled containers for recycling Recover uncontaminated product in clean, dry, labelled containers

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area. ▶ Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container	No restriction on the type of containers. ▶ Check that containers are clearly labelled
Storage incompatibility	Segregate from amp;44k3, strong acids amp;11a amp;44o1

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Singapore Permissible Exposure Limits of Toxic Substances	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	zinc oxide	Zinc oxide: Fume / Zinc oxide: Dust	5 mg/m3 / 10 mg/m3	10 mg/m3	Not Available	Not Available


EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
carbon black	Carbon black	9 mg/m3	99 mg/m3	590 mg/m3
zinc oxide	Zinc oxide	10 mg/m3	15 mg/m3	2500 mg/m3

Ingredient	Original IDLH	Revised IDLH
isobutylene homopolymer	Not Available	Not Available
2-butene homopolymer - polybutene	Not Available	Not Available
ethylene/ propylene/ ethylenenorbornene terpolymer	Not Available	Not Available
carbon black	N.E. mg/m3 / N.E. ppm	1,750 mg/m3
isoprene/ isobutene copolymer (butyl rubber)	Not Available	Not Available
zinc oxide	2,500 mg/m3	500 mg/m3
additives, unregulated	Not Available	Not Available

Seam Tape

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protection	
Eye and face protection	No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE: <ul style="list-style-type: none"> ▶ 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	No special equipment needed when handling small quantities. OTHERWISE: Wear chemical protective gloves, e.g. PVC.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: <ul style="list-style-type: none"> ▶ Overalls. ▶ Barrier cream. ▶ Eyewash unit.
Thermal hazards	Not Available

Respiratory protection

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

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 P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - 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 tacky solid with no odour. Insoluble in water.		
Physical state	Manufactured	Relative density (Water = 1)	0.97
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not available.
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	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)	<1
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water (g/L)	Insoluble.	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Seam Tape

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ 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

Information on toxicological effects

Inhaled	Not normally a hazard due to physical form of product.
Ingestion	The material is amp;5040 amp;5100 Not normally a hazard due to physical form of product.
Skin Contact	The material is moderately discomforting amp;5300 amp;11ai amp;5368 amp;5445
Eye	Not normally a hazard due to physical form of product.
Chronic	Primary route of exposure is usually by amp;5541m As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

Seam Tape	TOXICITY	IRRITATION
	Not Available	Not Available
isobutylene homopolymer	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available
	Oral (rat) LD50: >2000 mg/kg ^[1]	
2-butene homopolymer - polybutene	dermal (rat) LD50: >2000 mg/kg ^[1]	Nil reported
	Oral (rat) LD50: >2000 mg/kg ^[1]	
ethylene/ propylene/ ethylidenenorbornene terpolymer	TOXICITY	IRRITATION
	Not Available	Not Available
carbon black	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >3000 mg/kg ^[2]	Not Available
isoprene/ isobutene copolymer (butyl rubber)	TOXICITY	IRRITATION
	Not Available	Not Available
zinc oxide	TOXICITY	IRRITATION
	Oral (rat) LD50: >5000 mg/kg ^[1]	Eye (rabbit) : 500 mg/24 h - mild Skin (rabbit) : 500 mg/24 h- mild

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

2-BUTENE HOMOPOLYMER - POLYBUTENE	Inhalation (rat) TCLo: 700 mg/m ³ /7H/2W-I
CARBON BLACK	WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Inhalation (rat) TCLo: 50 mg/m ³ /6h/90D-I Nil reported
ZINC OXIDE	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
ISOBUTYLENE HOMOPOLYMER & ETHYLENE/ PROPYLENE/ ETHYLIDENENORBORNENE TERPOLYMER & CARBON BLACK & ISOPRENE/ ISOBUTENE COPOLYMER (BUTYL RUBBER)	No significant acute toxicological data identified in literature search.

Seam Tape

Acute Toxicity	☉	Carcinogenicity	✓
Skin Irritation/Corrosion	☉	Reproductivity	☉
Serious Eye Damage/Irritation	☉	STOT - Single Exposure	☉
Respiratory or Skin sensitisation	☉	STOT - Repeated Exposure	☉
Mutagenicity	☉	Aspiration Hazard	☉

Legend: ✗ – Data available but does not fill the criteria for classification
 ✓ – Data required to make classification available
 ☉ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
isobutylene homopolymer	LC50	96	Fish	6.473mg/L	3
isobutylene homopolymer	EC50	96	Algae or other aquatic plants	17.437mg/L	3
isobutylene homopolymer	EC50	384	Crustacea	1.561mg/L	3
2-butene homopolymer - polybutene	EC50	48	Crustacea	>3.1mg/L	2
2-butene homopolymer - polybutene	EC50	24	Crustacea	>3.1mg/L	2
carbon black	LC50	96	Fish	=1000mg/L	1
carbon black	EC50	24	Crustacea	>5600mg/L	1
carbon black	NOEC	96	Fish	=1000mg/L	1
zinc oxide	LC50	96	Fish	0.439mg/L	2
zinc oxide	EC50	48	Crustacea	0.105mg/L	2
zinc oxide	EC50	72	Algae or other aquatic plants	0.042mg/L	4
zinc oxide	BCF	336	Fish	4376.673mg/L	4
zinc oxide	EC20	72	Algae or other aquatic plants	0.023mg/L	4
zinc oxide	NOEC	72	Algae or other aquatic plants	0.0049mg/L	2

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Persistence and degradability

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

Bioaccumulative potential

Ingredient	Bioaccumulation
isobutylene homopolymer	LOW (LogKOW = 2.2256)
zinc oxide	LOW (BCF = 217)

Mobility in soil

Ingredient	Mobility
isobutylene homopolymer	LOW (KOC = 35.04)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Recycle containers if possible, or dispose of in an authorised landfill.
------------------------------	---

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
------------------	----

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

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture****ISOBUTYLENE HOMOPOLYMER(9003-27-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

2-BUTENE HOMOPOLYMER - POLYBUTENE(9003-29-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

ETHYLENE/ PROPYLENE/ ETHYLIDENENORBORNENE TERPOLYMER(25038-36-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

CARBON BLACK(1333-86-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Singapore Permissible Exposure Limits of Toxic Substances

ISOPRENE/ ISOBUTENE COPOLYMER (BUTYL RUBBER)(9010-85-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

ZINC OXIDE(1314-13-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Singapore Permissible Exposure Limits of Toxic Substances

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (ethylene/ propylene/ ethylidenenorbornene terpolymer; isobutylene homopolymer; isoprene/ isobutene copolymer (butyl rubber); carbon black; 2-butene homopolymer - polybutene)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (ethylene/ propylene/ ethylidenenorbornene terpolymer; isoprene/ isobutene copolymer (butyl rubber))
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION**Other information****Ingredients with multiple cas numbers**

Name	CAS No
isobutylene homopolymer	9003-27-4, 9003-29-6
zinc oxide	1314-13-2, 175449-32-8

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.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

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
 OSF: Odour Safety Factor
 NOAEL :No Observed Adverse Effect Level
 LOAEL: Lowest Observed Adverse Effect Level
 TLV: Threshold Limit Value
 LOD: Limit Of Detection

Continued...

OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.