MATERIAL SAFETY DATA SHEET

DEKTITE® and DEKSTRIP® PRODUCT

Internal Ref:

DEK002

Issued:

03/09/03

Status:

Approved for customer release

Moulded products containing Ethylene Propylene Diene Terpolymer (aka. EPDM).

Not classified hazardous acc. to National Occupational Health & Safety Commission (NOHSC)

COMPANY DETAILS

Name:

DEKS Industries Pty Ltd (ABN 81 007 516 092)

Address:

493 Mountain Highway, Bayswater VIC 3153, Australia

Tel:

+61 (03) 8727 8800

Fax:

+61 (03) 8727 8850

E-mail:

info@deks.com.au

Web:

http://www.deks.com.au/

IDENTIFICATION

Product ID:

DF*, RF*, DSF, TFA*

(* can be substituted for any number of alphanumeric characters

to complete the product code)

Other Names:

None listed

UN Number:

None Allocated

DG Class:

None Allocated

Packing Group: Hazchem Code: None Allocated None Allocated

Poisons Schedule:

Note Allocated

Product Use:

Used in the manufacture of a range of rubber goods.

PHYSICAL DATA

Appearance:

Black, grey or red solid

Boiling Point: Vapour Pressure: Not applicable Not applicable

Specific Gravity:

1.20 - 1.30 g/cm³ at 25°C

Flash Point:

> 220° C

LEL:

Not known

Solubility in Water:

Negligible

OTHER PROPERTIES

Autoignition Temp:

Not known

Form:

Solid

Other:

Percent Volatiles: < 1% by weight

Information:

Odour: Slight rubber odour

INGREDIENTS

Name:	Proportion (by weight):
Ethylene Propylene Diene Terpolymer	20-30%
Paraffinic Oil Plasticisers	20-30%
Carbon Black Reinforcing Fillers	15-25%
Treated Clays	0-30%
Precipitated Silicas	0-10%
Miscellaneous Additives (incl. activators, antioxidants, processing aids, waxes and pigme	ents) 1-10%
Miscellaneous Curing Agents (Incl. sulphur, thiazoles, thiurams, dithiocarbamates)	1-10%

HEALTH HAZARD INFORMATION

Health Effects: Apart from the onset of cure, EPDM compounds are quite stable

up to curing temperatures that are typically up to 180°C. However, after prolonged heating above these temperatures, they will start to decompose, finally emitting fumes and vapours which

may be toxic and flammable.

Ingested: Low order of toxicity – an unlikely route of entry to the body.

First aid is not normally required

Eye Contact: Irritating, but does not injure eye tissue. Particulates may scratch

eye surfaces.

If eye contact occurs, a large amount of water is used to flush the

eyes until irritation subsides. If irritation persists, medical

attention should be sought.

Skin Contact: Low order of toxicity – may cause slight irritation. Exposure to

hot material may cause severe burns requiring immediate

treatment.

After skin contact occurs wash area with soap and water. For hot product, immediately immerse in or flush the area with large amounts of cold water. Cover with clean cotton sheeting or gauze and seek medical attention promptly. Do not attempt to

remove material from skin or to remove contaminated clothing.

Low order of toxicity - an unlikely route of entry to the body. If polymer dust is generated, inhalation of dust may cause temporary discomfort to the nose and respiratory tract. First aid is not normally required. Remove to fresh air.

Chronic: Frequent or prolonged contact with the skin may cause irritation

that may lead to contact dermatitis.

ADVICE TO DOCTOR No special requirements - treat symptomatically.

Inhaled:

CONTROL MEASURES

Constant Exposure: No specific standard has been assigned to inspirable rubber dust

by the NOHSC. However DEKS Industries Pty Ltd recommends control of exposure to 10mg/m³ or less averaged over an eight-

hour working day.

Engineering Controls: Local exhaust ventilation of process equipment is needed to

control particulate exposure to below the above recommendation.

If the product is heated to high temperatures the use of

mechanical dilution ventilation is recommended.

PRECAUTIONS FOR SAFE HANDLING AND USE

Protective Equipment: Where prolonged contact is likely, wear chemical resistant gloves.

A dust mask is recommended where inhalation of polymer dust may occur. Where contact may occur with hot material, wear thermal resistant gloves, arm protection and a face shield.

FLAMMABILITY

Fire Hazards: Low fire hazard. Avoid naked flames.

STORAGE AND TRANSPORT

Electrostatic Hazard: None

Storage: Store mouldings at temperatures less than 40°C. Keep away

from excessive heat to avoid polymer degradation. Keep away

from strong oxidizing agents.

Proper Shipping Name: None allocated.

Handling: Do not consume food when handling moulded products.

SPILLS AND DISPOSAL

Land Spill:

Eliminate source of ignition. Prevent additional discharge of material, if possible to do so without hazard. Pick up or sweep up spilled material. Recycle if possible or safely dispose in any sanitary landfill. Ensure conformity to local, state and federal disposal regulations.

disposal regulations.

Water Spill:

Scoop material off water. No immediate action required. Safely dispose in any sanitary landfill. Ensure conformity to local, state

and federal disposal regulations.

FIRE/EXPLOSION HAZARD

General Hazard:

Solid material may burn at or above the flashpoint and airborne dust may explode, if ignited. If thermally decomposed, flammable/toxic gases may be released. Toxic gases will form on combustion. Fire is accompanied by the evolution of dense black smoke with an acrid odour, which may cause lacrimation (watery eyes).

Fire Fighting:

Use water spray to cool fire exposed crate surfaces and to protect personnel. Isolate "fuel" supply from fire. Extinguish the fire by cooling with water spray, foam or dry chemical. Respiratory and eye protection required for fire fighting personnel. Dense black smoke, carbon monoxide, carbon dioxide and a mixture of complex and toxic fumes formed from the decomposition products of incorporated organic accelerators, vulcanizing agents, antioxidants, plasticisers and processing aids may be produced when EPDM is burning.

Hazchem Code:

None Allocated.

IN CASE OF EMERGENCY

Name:

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TECHNICAL SPECIFICATION

Product Range:

Dektite (incl. Retrofit, Soaker, Seldek and Tile Flashing)

American Standard for Testing of Materials (ASTM)

ASTM Method	Test Description	Typical Results				
		Specification	Grey EPDM	Black EPDM	Red Silicone	
D2240	Shore 'A' Hardness		60 +/- 5	60	60	60
D412	Tensile Strength (MPa min)		7.0 min	10.5	10.5	8.5
D412	Elongation @ Break (% min)	÷.	350 min	650	650	525
D624	Tear Resistance Die C (kN/m min)		20.0 min	31.5	32	22
	Trouser Tear (kN/min)		10.0 min	14	14.5	12
D573	Heat Resistance 70 hrs @ 100°C					
	Change in Hardness (points)		+/- 10	1	3	6
	Change in Tensile (%)		+/- 25	3.5	-5	9
	Change in Elongation (%)		+/- 25	-14	-16	-9
D395	Compression Set 22 hrs @ 70°C (% max)		47.7	14	14.5	7
D1171	Resistance to Ozone		100ppm No cracks	Passed	Passed	Passed
D2137	Low Temp. Brittleness (3 mins @ -50°C)		Non-brittle	Passed	Passed	Passed

Underwriters Laboratory (UL)

UL 94 Flame Resistance	НВ	Passed	Passed	Passed	
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Other

SAAHB39 -1997	Installation Code for Metal Roofing and walling	-	Apprvd	Apprvd	Apprvd
AS2918 - 1990	Installation of Domestic Solid Fuel Burning Products	34	Apprvd	Apprvd	Apprvd
SAE J1960	Accelerated UV testing ¹	400hrs No cracks	Pass	Pass	Pass
-	Constant Temperature Resistance	-	-50 to 115°C	-50 to 115°C	-60 to 200°C
_	Intermittent Temperature Resistance	•	-50 to 150°C	-50 to 150°C	-60 to 250°C

 $^{^{1}}$ Tests conducted at 83 °C, 50% relative humidity/dry cycle and 0.48 w/m 2 (UV-A 340 nm)