

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **Radmix Structural Synthetic Fibres**
Product code: RAD55s
Product: Macro Structural Synthetic Fibre.

Company: Radmix Pty Ltd.
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Address: 110 Safari Place,
Carabooda, Western Australia, 6033
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Emergency telephone number: 0409 345 345 or 0409 556 893

Technical Information

Material	100% virgin polypropylene
Grade	hp565k
Melt flow	3.5
Specific Gravity	0.92
Melt point	170 °C
Fiber Length	55 mm
Strength	550 + Mpa
Acid Resistance	excellent
Alkali Resistance	excellent
Fiber Type	embossed
Packing	5KG bags or to clients specification
Grasp Force between the Fiber and Cement	500 + Mpa
Color	Grey
Electrical Conductivity	Low
Moisture Content	0.0%
Standard Dosage	2 - 10 kg/m ³
Fibres per Kg	37,000 ± 1,000
Density	N/A

IDENTIFICATION

PRODUCT CODE; RAD55s
PRODUCT NAME ; Polypropylene Homopolymer
OTHER NAMES; Polypropylene nibs, Polypropylene pellets
PRODUCT TYPE; (Macro Structural Synthetic Fibre)

USE; TO BE USED IN CONCRETE BY EXTRUSION OR OTHER CONVERSION PROCESS.

CLASSIFICATION; NOT CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA U.N. NUMBER, DANGEROUS GOODS CLASS, HAZCHEM CODING AND POISONS SCHEDULES DO NOT APPLY TO THIS MATERIAL

PHYSICAL DESCRIPTION AND PROPERTIES (Typical Figures)**APPEARANCE AND ODOUR;**

White, odourless, plastic pellet/nib/granule

CHEMICAL REACTIVITY;

Stable. Reacts with strong oxidising agents. At processing temperatures, some degree of degradation will occur. Although highly dependent on temperature and environmental conditions a variety of decomposition products may be present ranging from simple hydrocarbons (such as methane and propane) to toxic/irritating gases (carbon monoxide and dioxide, acrolein, acids, ketones, aldehydes). [See Health Hazards].

SPECIFIC GRAVITY:	0.91g/cm ³ @ 15°C
BOILING POINT:	not applicable.
MELTING POINT:	170 °C
SOLUBILITY (WATER):	Insoluble

The following categories are of no relevance to the material;

- 1) Vapour pressure
- 2) Vapour density
- 3) Evaporation rate
- 4) Percent volatiles

FIRE/EXPLOSION HAZARD;

FLASH POINT:	Not applicable
EXPLOSION LIMIT	Not applicable to granules
AUTOIGNITION:	390°C minimum.
LEL:	not available
UEL:	not available

INGREDIENTS;

Chemical Name	CAS Number	Proportion
Polypropylene homopolymer	9003-07-0	>99%
Additives for process and long term stabilisation, polymer modification aids		<1%

HEALTH HAZARD INFORMATION;**HEALTH EFFECTS;****ACUTE;**

At room temperature the product is not an irritant and does not liberate dangerous fumes. In its molten state the material will have a temperature in excess of 150°C and will cause severe burns. Pre-existing eye and respiratory complaints may be aggravated by exposure to product fines (powder) and / or fumes generated at processing temperatures.

SWALLOWED;

The material is considered non-toxic and no specific measures are required in case of ingestion..

EYE;

Product fines may cause mechanical irritation to eyes. Rinse eye with cold running water for several minutes then seek medical advice. Process vapours may irritate eyes, ensure adequate ventilation.

SKIN;

Contact with molten material can cause severe burns.

INHALED;

Product fines may cause mechanical irritation to the respiratory system.

Process vapours could be irritating to the respiratory system.

CHRONIC;

Limited toxicological studies show no signs of toxicity to animals. No data is available for humans.

FIRST AID;**SWALLOWED;**

No specific measures are required in case of ingestion of the product.

EYE;

If irritation occurs, hold eyes open and flood with water for 15 mins. If irritation persists, seek medical attention.

SKIN/BURNS;

Should be cooled with cold water or ice. Do not use ice or cold packs if burned area covers more than 10% of the body as this may contribute to the shock. Leave burned area uncovered.

DO NOT TRY TO REMOVE SOLIDIFIED PRODUCT FROM THE SKIN. Seek immediate medical advice.

INHALED;

Treatment not ordinarily required. If a large number of fumes are inhaled, keep the patient in a well ventilated area. If symptoms persist, seek medical advice.

ADVICE TO DOCTOR;

Pre-existing eye and respiratory complaints may be aggravated by exposure to product fines and fumes at processing temperatures. **BURNS** - No attempt should be made to remove the solidified product (it acts as a sterile dressing).

PRECAUTIONS FOR USE**EXPOSURE LIMITS;**

No data available on polypropylene.

ENGINEERING CONTROLS;

At room temperature special ventilation is not normally required.

Ventilation should be provided to remove fumes generated during processing. Dust generated in handling granular polypropylene presents no special health hazard, but atmospheric dust levels should nevertheless be minimised and the National Health & Medical Research Council's Hygienic Standard of 10g/m for nuisance dusts, observed.

PERSONAL PROTECTION;

When handling material at room temperature, no special protection is required. If large quantities of dust or fumes are present, then a dust mask or respirator complying with AS1715 or AS1716 should be utilised, as appropriate.

When product is heated during processing adequate ventilation and/or engineering controls are required. Where molten product is liable or likely to come into contact with the person, the following equipment is required;

- 1) Full face shield
- 2) Heat resistant gloves (long gauntlets)
- 3) Cotton combination overalls with close fit at neck and wrists
- 4) Leather safety shoes or rubber boots (trousers worn outside)
- 5) Hard hat

FLAMMABILITY;

Combustible substance. Will not burn unless preheated. Take precautions against static electricity discharges. Ensure adequate ventilation. Earth and bond all process equipment. Ensure all process equipment is flameproof.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT;

Store in a cool, dry place, away from strong oxidising agents. Minimise accumulation of dust. Polypropylene is not defined as a Dangerous Good by the Australian Code of the Transport of Dangerous Goods by Road and Rail.

SPILLS AND DISPOSAL;

Caution: it is easy to slide and lose footing on granule spillage's. Clean up immediately.

Shovel and sweep up, or use an industrial vacuum cleaner. Put into containers for reclaiming or disposal. Not biodegradable. Do not allow environmental contamination.

For molten product- Hose with water and allow to cool. Scoop up solidified material and place in containers for reclaim. Refer to local waste management authority for land fill and incineration guidelines.

FIRE/EXPLOSION HAZARD;

Combustible substance. Will not burn unless preheated.

Moulded parts generally burn slowly with a low smoke density and flaming drips. Under certain conditions it can burn with a high smoke density. Smoke from burning polypropylene can contain various levels of toxic gases, depending on the amount of oxygen present.

Do not enter confined space without adequate protective clothing. Emergency personnel should wear:

- 1) Leather boots
- 2) Helmet and face shield
- 3) Leather gloves
- 4) Suitable fire resistant, non-melting protective clothing
- 5) If entering a confined area a self contained breathing apparatus should be used.

Use foam, Carbon Dioxide, dry agent or water fog/spray on fires.

SPECIAL NOTES

Version: MSDS Homopolymer
Issue Date: February 2008
Next Revision Date: February 2013

Material Safety Data sheets are revised on an as needs basis (with a minimum revision set for every 5 years). To ensure that you have the latest copy, please contact the number below.

If further clarification of any of the issues discussed above is required, please call the contact number below.

CONTACT POINT; Technical department on: **+61 (3) 9829 9455**

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