



FRICION MATERIAL 4WD (1188)
MATERIAL SAFETY DATA SHEET

ISSUE DATE – 29 NOV 2005

SUPPLY DATE – 29 NOV 2005

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SECTION 1 IDENTIFICATION OF THE MATERIAL & SUPPLIER

PRODUCT NAME 4WD (1188)

APPLICATION Friction Material for vehicle brakes

SUPPLIER FMP Group (Australia) Pty Ltd
Elizabeth Street, Ballarat VICTORIA

EMERGENCY TELEPHONE 61 3 53270211

SECTION 2 HAZARDS IDENTIFICATION

This product is classified as hazardous under the criteria of WorkSafe Australia

HAZARD CLASSIFICATION 1

RISK PHRASE(S) R38, R37, R20

SAFETY PHRASE(S) S51, S36

WARNING

HEALTH Normal use of this product will liberate dust. Avoid inhalation of dust.

ENVIRONMENT Dispose of as general industry waste.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS Number | WEIGHT % | NOHSC TWA | NOHSC STEL | SKIN |
|--------------------------------------|------------|----------|--------------------|------------|------|
| Lime | 1305-62-0 | 3% | 5mg/m ³ | --- | --- |
| Graphite | 7782-42-5 | 9% | 3mg/m ³ | --- | --- |
| Copper | 7440-50-8 | 16% | 1mg/m ³ | --- | --- |
| Synthetic Mineral Fibre | | 4% | 0.5fibres/ml | | |
| Ammonium Dichromate | 7789-09-05 | <0.1% | | --- | --- |
| Carbon Black | 1333-86-4 | <0.1% | --- | --- | --- |
| NON HAZARDOUS INGREDIENTS UP TO 100% | | | | | |

SECTION 4 FIRST AID MEASURES

INHALATION Remove to fresh air.

SKIN CONTACT Wash exposed area with soap. Obtain medical advice if irritation develops.

EYE CONTACT Flush with large amounts of water for 15 minutes, keep eyelids open. Obtain medical advice.

INGESTION Obtain medical attention as a precautionary measure.

OTHER Clothing contaminated with fibrous dust should be isolated in the work area until laundered.



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SECTION 5 FIRE FIGHTING MEASURES

| | |
|---|--|
| EXTINGUISHING MEDIA | Carbon Dioxide, water, foam. |
| PROTECTION OF FIREFIGHTERS | Use respiratory protection. |
| HAZCHEM CODE | NOT APPLICABLE |
| HAZARDOUS DECOMPOSITION PRODUCTS | CARBON MONOXIDE CARBON DIOXIDE Oxides of NITROGEN. |

SECTION 6 ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|--------------------------|
| PERSONAL PRECAUTIONS | Avoid generating dust. |
| ENVIRONMENTAL PRECAUTIONS | NO INFORMATION AVAILABLE |
| METHODS FOR CLEANING UP | NOT APPLICABLE |

SECTION 7 HANDLING AND STORAGE

HANDLING

| | |
|-------------------------------|----------------------------------|
| TECHNICAL MEASURES | No special precautions necessary |
| PRECAUTIONS AND ADVICE | No special precautions necessary |

STORAGE

| | |
|---------------------------|----------------------------------|
| TECHNICAL MEASURES | No special precautions necessary |
| STORAGE CONDITIONS | No special precautions necessary |

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------------|---|
| NATIONAL EXPOSURE STANDARDS | NOT ESTABLISHED |
| BIOLOGICAL LIMIT VALUES | NOT ESTABLISHED |
| ENGINEERING CONTROLS | NOT ESTABLISHED |
| PERSONAL PROTECTIVE EQUIPMENT | GLOVES Protective gloves recommended |
| | EYE PROTECTION Safety glasses with side shields or goggles |
| | VENTILATION Local exhaust ventilation may be required |
| | OTHER EQUIPMENT Not required under normal use |
| | WORK HYGIENE Wash thoroughly after handling before eating, drinking or smoking |



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|-----------------|
| Appearance | DARK GREY SOLID |
| Odour | NONE |
| pH | NOT AVAILABLE |
| Vapour Pressure | NOT AVAILABLE |
| Vapour Density | NOT AVAILABLE |
| Boiling point/range | NOT AVAILABLE |
| Freezing Point | NOT AVAILABLE |
| Solubility | INSOLUBLE |
| Specific Gravity or Density | 2.46-2.64 |
| Information on Flammability | |
| Flash Point | NOT AVAILABLE |
| UEL | NOT AVAILABLE |
| LEL | NOT AVAILABLE |
| Additional Information | |
| Specific Heat Value | NOT ESTABLISHED |
| Particle Size | NOT AVAILABLE |
| VOC Content | NOT ESTABLISHED |
| Evaporation Rate | NOT AVAILABLE |
| Viscosity | NOT APPLICABLE |
| Percent volatile | NOT AVAILABLE |
| Octanol/Water Partition Coefficient | NOT AVAILABLE |
| Saturated vapour concentration | NOT AVAILABLE |
| Additional applicable Characteristics | NONE |
| Flame Propagation | NOT APPLICABLE |
| Other Properties that may contribute to the intensity of a fire | NOT AVAILABLE |
| Potential for Dust Explosion | NONE |
| Reactions that release flammable gases or vapours | NOT AVAILABLE |
| Fast or intensely burning characteristics | NOT AVAILABLE |
| Non-flammables that could contribute unusual hazards to a fire | NONE |
| Release of invisible flammable vapours and gases. | NOT AVAILABLE |
| Decomposition temperature | NOT AVAILABLE |

SECTION 10 STABILITY AND REACTIVITY

| | |
|----------------------------------|--|
| CHEMICAL STABILITY | STABLE |
| CONDITIONS TO AVOID | NONE |
| INCOMPATIBLE MATERIALS | Strong Oxidizing agents |
| HAZARDOUS DECOMPOSITION PRODUCTS | CARBON MONOXIDE CARBON DIOXIDE Oxides of NITROGEN Airborne Fibrous Dust |
| HAZARDOUS REACTIONS | NOT AVAILABLE |



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SECTION 11 TOXICOLOGICAL INFORMATION

No information regarding effects or exposures.

SECTION 12 ECOLOGICAL INFORMATION

NO INFORMATION AVAILABLE

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES DISPOSE OF AS GENERAL INDUSTRY WASTE

CONTAMINATED PACKAGING NO AVAILABLE INFORMATION

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT) NOT AVAILABLE

INTERNATIONAL AIR TRANSPORTATION NOT AVAILABLE

INTERNATIONAL WATER TRANSPORTATION NOT AVAILABLE

DANGEROUS GOODS CLASS CLASS 9 – MISCELLANEOUS

UN NUMBER NOT AVAILABLE

HAZCHEM CODE NOT AVAILABLE

SPECIAL PRECAUTIONS FOR USE AVOID GENERATING DUST

SECTION 15 REGULATORY INFORMATION

Hazardous Substance, Dangerous Good, No EPA data available.

SECTION 16 OTHER INFORMATION

KEY / LEGEND

| | |
|-------------------------|----------------------------|
| TLV | Threshold limit value |
| TWA | Time-weighted average |
| STEL | Short-term exposure limit |
| mg/m³ | Milligrams per meter cubed |
| ppm | Parts per million |

The following sections contain revisions OR NEW statements: NOT AVAILABLE

DISCLAIMER

While every effort has been made to ensure the accuracy of the information, the information is based on data believed by FMP Group (Australia) Pty. Ltd. to be accurate at the time of writing this Material Safety Data Sheet, but is subject to change without notice. Exact formulations are proprietary and therefore confidential. Precise product composition will not be disclosed except as in accordance with relevant laws and regulations. The information is given in good faith but FMP Group (Australia) Pty. Ltd. gives no warranty, expressed or implied of any kind whatsoever as to its accuracy, completeness or otherwise. Under no circumstances shall FMP Group (Australia) Pty. Ltd. be responsible for damages of any nature, directly or indirectly arising out of the materials referred to, or the publication, use or reliance upon the data provided.



FRICION MATERIAL 4WD (XB+) MATERIAL SAFETY DATA SHEET

ISSUE DATE – May 2007

SUPPLY DATE – May 2007

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SECTION 1 IDENTIFICATION OF THE MATERIAL & SUPPLIER

PRODUCT NAME 4WD (XB+)

APPLICATION Friction Material for vehicle brakes

SUPPLIER FMP Group (Australia) Pty Ltd
Elizabeth Street, Ballarat VICTORIA

EMERGENCY TELEPHONE 61 3 53270211

SECTION 2 HAZARDS IDENTIFICATION

This product is classified as hazardous under the criteria of WorkSafe Australia

HAZARD CLASSIFICATION 1

RISK PHRASE(S) R43, R23, R24, R25, R40

SAFETY PHRASE(S) S26, S36, S51, S22

WARNING

HEALTH Normal use of this product will liberate dust. Avoid inhalation of dust.

ENVIRONMENT Dispose of as general industry waste.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS Number | WEIGHT % | NOHSC TWA | NOHSC STEL | SKIN |
|--------------------|------------|----------|---------------------------------|------------|------|
| Sponge Iron Powder | 7440-31-5 | 50-60% | --- | --- | --- |
| Steel Grit | 14808-60-7 | 10-20% | --- | --- | --- |
| Graphite | 7782-42-5 | 10-20% | 3 mg/m ³ | --- | --- |
| Resin | 9003-35-4 | 7% | --- | --- | --- |
| Magnesium Oxide | 1309-48-4 | 0-10% | 10 mg/m ³ as fume | --- | --- |
| Barytes | 7727-43-7 | 0-10% | --- | --- | --- |
| Phenol | 108-95-2 | <1% | 1ppm | --- | --- |
| Formaldehyde | 50-00-0 | 1% | 1 ppm | 2 ppm | --- |

NON HAZARDOUS INGREDIENTS UP TO 100%

SECTION 4 FIRST AID MEASURES

INHALATION Remove to fresh air.

SKIN CONTACT Wash exposed area with soap. Obtain medical advice if irritation develops.

EYE CONTACT Flush with large amounts of water for 15 minutes, keep eyelids open. Obtain medical advice.

INGESTION Obtain medical attention as a precautionary measure.

OTHER Clothing contaminated with fibrous dust should be isolated in the work area until laundered.



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SECTION 5 FIRE FIGHTING MEASURES

| | |
|---|---|
| EXTINGUISHING MEDIA | Use extinguishing media for surrounding fire. |
| PROTECTION OF FIREFIGHTERS | Use respiratory protection. |
| HAZCHEM CODE | NOT APPLICABLE |
| HAZARDOUS DECOMPOSITION PRODUCTS | OXIDES OF NITROGEN, CARBON MONOXIDE, CARBON DIOXIDE, PHENOL, FORMALDEHYDE |

SECTION 6 ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|--|
| PERSONAL PRECAUTIONS | Avoid generating dust. |
| ENVIRONMENTAL PRECAUTIONS | NO INFORMATION AVAILABLE |
| METHODS FOR CLEANING UP | Use an Industrial Vacuum Cleaner fitted with a high efficiency particulate (HEPA) Filter |

SECTION 7 HANDLING AND STORAGE

HANDLING

| | |
|-------------------------------|---|
| TECHNICAL MEASURES | Use LEV if applicable (eg: generating dust) |
| PRECAUTIONS AND ADVICE | Do not breathe dust |

STORAGE

| | |
|---------------------------|----------------------------------|
| TECHNICAL MEASURES | No special precautions necessary |
| STORAGE CONDITIONS | No special precautions necessary |

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------------|---|
| NATIONAL EXPOSURE STANDARDS | NOT ESTABLISHED |
| BIOLOGICAL LIMIT VALUES | NOT ESTABLISHED |
| ENGINEERING CONTROLS | NOT ESTABLISHED |
| PERSONAL PROTECTIVE EQUIPMENT | GLOVES Protective gloves recommended |
| | EYE PROTECTION Safety glasses with side shields or goggles |
| | VENTILATION Local exhaust ventilation may be required |
| | OTHER EQUIPMENT Not required under normal use |
| | WORK HYGIENE Wash thoroughly after handling before eating, drinking or smoking |



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--------------------|
| Appearance | GREY OR DARK SOLID |
| Odour | NONE |
| pH | NOT AVAILABLE |
| Vapour Pressure | NOT AVAILABLE |
| Vapour Density | NOT AVAILABLE |
| Boiling point/range | NOT AVAILABLE |
| Freezing Point | NOT AVAILABLE |
| Solubility | INSOLUBLE |
| Specific Gravity or Density | 3.35 – 3.75 |
| Information on Flammability | |
| Flash Point | NOT AVAILABLE |
| UEL | NOT AVAILABLE |
| LEL | NOT AVAILABLE |
| Additional Information | |
| Specific Heat Value | NOT ESTABLISHED |
| Particle Size | NOT AVAILABLE |
| VOC Content | NOT ESTABLISHED |
| Evaporation Rate | NOT AVAILABLE |
| Viscosity | NOT APPLICABLE |
| Percent volatile | NOT AVAILABLE |
| Octanol/Water Partition Coefficient | NOT AVAILABLE |
| Saturated vapour concentration | NOT AVAILABLE |
| Additional applicable Characteristics | NONE |
| Flame Propagation | NOT APPLICABLE |
| Other Properties that may contribute to the intensity of a fire | NOT AVAILABLE |
| Potential for Dust Explosion | NONE |
| Reactions that release flammable gases or vapours | NOT AVAILABLE |
| Fast or intensely burning characteristics | NOT AVAILABLE |
| Non-flammables that could contribute unusual hazards to a fire | NONE |
| Release of invisible flammable vapours and gases. | NOT AVAILABLE |
| Decomposition temperature | NOT AVAILABLE |

SECTION 10 STABILITY AND REACTIVITY

| | |
|----------------------------------|---|
| CHEMICAL STABILITY | STABLE |
| CONDITIONS TO AVOID | NONE |
| INCOMPATIBLE MATERIALS | NONE |
| HAZARDOUS DECOMPOSITION PRODUCTS | OXIDES OF NITROGEN, CARBON MONOXIDE, CARBON DIOXIDE PHENOL, FORMALDEHYDE |
| HAZARDOUS REACTIONS | NOT AVAILABLE |



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SECTION 11 TOXICOLOGICAL INFORMATION

PHENOL FORMALDEHYDE RESIN

Formaldehyde concentration in finished product less than 1%

Formaldehyde is classified as a Category 2 Carcinogen (probable human carcinogen).

Formaldehyde may cause sensitisation by skin contact and asthma-like symptoms following inhalation of formaldehyde vapour, which can be released during heat curing process.

No information regarding other effects or exposures.

SECTION 12 ECOLOGICAL INFORMATION

NO INFORMATION AVAILABLE

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES DISPOSE OF AS GENERAL INDUSTRY WASTE

CONTAMINATED PACKAGING NO AVAILABLE INFORMATION

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT) NOT AVAILABLE

INTERNATIONAL AIR TRANSPORTATION NOT AVAILABLE

INTERNATIONAL WATER TRANSPORTATION NOT AVAILABLE

DANGEROUS GOODS CLASS NOT APPLICABLE

UN NUMBER NOT AVAILABLE

HAZCHEM CODE NOT AVAILABLE

SPECIAL PRECAUTIONS FOR USE AVOID GENERATING DUST

SECTION 15 REGULATORY INFORMATION

Hazardous Substance, No EPA data available.

SECTION 16 OTHER INFORMATION

KEY / LEGEND

| | |
|-------------------------|----------------------------|
| TLV | Threshold limit value |
| TWA | Time-weighted average |
| STEL | Short-term exposure limit |
| C | Ceiling limit |
| mg/m³ | Milligrams per meter cubed |
| ppm | Parts per million |

The following sections contain revisions OR NEW statements: NOT AVAILABLE



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