

# Material Safety Data Sheet

Material Safety Data Sheet Number: MA1201  
Revision Date: April-16



## Section 1: Product and Company Identification

**Product Type:** Brake Linings  
**Product Code:** MA1201  
**Products marked with edge codes:** MA1201

### Company Identification

FRAS-LE S.A.  
RS122, km 66 nº10945  
Caxias do Sul -95115.550 - RS  
Brazil

**Telephone**  
55 54 3239 1000

## Section 2: Hazards Identification

Signal Word : Warning  
Hazard pictogramas :



GHS Classification : Eye, Skin, respiratory irritant-Category 4  
OSHA\MSHA Hazards: Nuisance Dust  
Hazards Statements: Inhalation, Eye Contact, Skin, Contact, Ingestion  
Carcinogenic Status: None  
Health Effects-Eyes: Exposure to dust generated from this product may cause eye irritation.  
Health Effects-Skin: Prolonged exposure to dust generated from this product may cause skin irritation in some individuals.  
Health Effects-Ingestion: There are no known hazards resulting from ingestion of this product.  
Health Effects-Inhalation: Dust generated from this product may cause irritation of nose, throat and lungs.  
Other hazards : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin and nose.

## Section 3: Composition & Information on Ingredients

Substance/Mixture:	Mixture		
	CAS #	Ingredient name	% by weight
	065997-17-3	Fiberglass (>3.5µm diameter)	< 10%
	001344-28-1	Aluminum Oxide	< 2%
	014808-60-7	Vermiculite	< 10%
	68131-74-8	Iron Oxide	< 10%
	007440-44-0	Carbon / Graphite	< 10%
	RN 287922-11-6	Phenolic Resin	< 15%

Remaining ingredients are either non-hazardous, or are contained within this product below minimis concentrations.  
Occupational exposure limits, if available, are listed in Section 8

## Section 4: First Aid Measures

### First Aid Procedures

Ingestion: Contact a physician.  
Inhalation: Remove to fresh air. Contact a physician.  
Skin: In case of irritation, remove contaminated clothing and flush affected areas with water. If irritation persists, contact a physician.  
Eye: Flush with water for at least 15 minutes. If irritation persists, contact a physician.

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## Section 5: Fire Fighting Measures

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Flash Point: Not applicable  
Lower Explosion Limit: Not applicable  
Upper Explosion Limit: Not applicable  
Autoignition Temperature: Not determined  
Suitable extinguishing media : Use water spray, dry chemical, foam or CO2  
Specific hazards arising from the chemical: Material will burn in a fire.

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## Section 6: Accidental Release Measures

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Avoid generating dust from this product. Clean up using methods that do not generate dust such as vacuum or wet clean up. Avoid pneumatic removal of dust. If dust is generated, use a respirator.

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## Section 7: Handling and Storage

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### Handling

Handle in accordance with good industrial hygiene and safety practices. Minimize dust generation. Use adequate ventilation if dust is generated.

Inhalation: Avoid prolonged or repeated breathing of dust.  
Skin: Avoid prolonged or repeated contact with skin.  
Eye: Avoid eye contact.

### Storage

Store in a dry area. Contact with moisture may promote rust.

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## Section 8: Exposure Controls / Personal Protection

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### Recommended monitoring procedures

If user operations generate dust, use ventilation to keep exposure to airborne contaminants below applicable exposure limits.

### Individual protection measures

Eye / Face: Use protective safety glasses with side shields or goggles if dust is generated.

Skin: Individuals with sensitive skin should wear protective gloves and clothing that covers any skin that may come into repeated or prolonged contact with this product or any dust generated from this product.

Respiratory: The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator .

### Control parameters

#### Occupational exposure limits

065997-17-3	<b>Fiberglass (&gt;3.5µm diameter)</b>	OSHA PEL: TWA 15 mg/m3(total);TWA 5mg/m3 ( respirable) ACGIH TLV: 1.0 fiber/cc; Inhalable fraction 5 mg/m3	
001344-28-1	<b>Aluminum Oxide</b>	OSHA PEL: 15 mg/m3 TWA,Total Mass;5mg/m3 TWA,respirable mass ACGIH TLV: NA	
014808-60-7	<b>Vermiculite</b>	OSHA PEL: NA ACGIH TLV: 0.05 mg/m3 TWA (respirable fraction by size selector)	- 0.025
68131-74-8	<b>Iron Oxide</b>	OSHA PEL: 5 ppm ACGIH TLV: NA	
007440-44-0	<b>Carbon / Graphite</b>	OSHA PEL: 15 mg/m3 TWA, Total Dust; 5mg/m3 TWA, respirable Fraction ACGIH TLV: NA	
RN 287922-11-6	<b>Phenolic Resin</b>	OSHA PEL: NA ACGIH TLV: NA	

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### Section 9: Physical and Chemical Properties

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Appearance / Odor:	Solid; dark gray to black disc pad with friction material odor.
pH:	Approx. 8.0
Vapor Pressure:	N/A
Vapor Density:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Solubility in H <sub>2</sub> O:	N/A
Specific Gravity:	1,74 g/cm <sup>3</sup>

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### Section 10: Stability and Reactivity

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Stability:	Stable
Conditions to Avoid:	None Known
Materials to Avoid:	None Known
Hazardous Polymerization:	Will Not Occur
Decomposition Products:	None Known

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### Section 11: Toxicological Information

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#### Information on toxicological effects

No relevant toxicological studies was found for this product.

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### Section 12: Ecological Information

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Mobility : This product is insoluble in water  
Persistence/ Degradability : No relevant studies identified  
Bio-Accumulation: No relevant studies identified  
Ecotoxicity: No relevant studies identified

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### Section 13: Disposal Considerations

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Product Disposal: Dispose of in accordance with all applicable local and national regulations.

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### Section 14: Transport Information

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International transport regulations: Non-Regulated

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### Section 15: Regulatory Information

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#### OSHA Hazard Communication Standard 29 CFR 1910.1200

This product meets the OSHA definition of an "article", therefore the OSHA Hazard Communication Standard can be considered inapplicable.

#### SARA Title III Section 311/312

This product contains substances regulated under OSHA Hazard Communication Standard 29 CFR 1910.1200 at or above OSHA de minimis quantities.

#### SARA Title III Section 313

This product contains Al<sub>2</sub>O<sub>3</sub> (CAS # 1344-28-1) which are subject to the reporting requirements (i.e., at or above de minimis quantities) of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) 40 CFR 372.

#### TSCA

All ingredients in this product are either included in EPA's Toxic Substance Control Act Inventory of Chemical Substances.

#### Environmental Marking According SAE J2975-2011

This product is classified "N" according to SAE J2975-2011 Measurement of Copper and Other Elements in Brake Friction Materials

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## Section 16: Other Information

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**Revision Level:** 5  
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**Disclaimer**

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