

# MATERIAL SAFETY DATA SHEET

According to 2001/58/CE – DM 07/09/2002 – ISO 11014-1

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Print date: 06/10/2005

Up date:

## 1. Product and company identification

*Product name:* **ATE 501 FF**

*Uses:* brake pads and shoes for automotive industries

## 2. Composition/Information on ingredients

INGREDIENT	N° CAS	N° EINECS	TLV-TWA	% pp
Aramid fiber	26125-61-1			Max 3%
Novolac phenolic resin	67700-42-9			Max 9%
NBR rubber	9003-18-3			Max 2%
Potassium titanate	39290-90-9			Max 15%
Mixture sulphide				Max 20%
Graphite	7782-42-5	231-955-3	2 mg/m <sup>3</sup>	Max 10%
Copper	7440-50-8	231-159-6	1 mg/m <sup>3</sup> (powder)	15-25%
Barite	7727-43-7	231-784-4	10 mg/m <sup>3</sup>	10-20%
Aluminium oxide	1344-28-1	215-691-6	10 mg/m <sup>3</sup>	Max 5%
Cashew particles	68583-07-3			Max 10%
Cellulose Fiber	9004-34-6	232-674-9		Max 2%
Magnesium oxide	1309-48-4	215-171-9		Max 6%
Mica	12001-26-2			Max 5%
Wollastonite	13983-17-0	231-096-4		Max 5%

OSHA Status: The friction material product identified in this sheet meets the OSHA definition of an “article” and is not considered hazardous under normal handling and use.

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### **3. Hazard identifications**

For this product, under normal service conditions, no potential risks are known.

This product doesn't contain asbestos. However, it may contain some non-asbestos fibers such as aramid. While we are not aware of any specific health hazards caused by exposure to the friction material dust containing these fibres, general studies of very fine breathable fibres, physically similar in diameter and length to asbestos, indicate the possibility in case of overexposure, of chronic lung disease, including fibrosis.

### **4. First aid measures**

*Inhalation: ---*

*Skin (powder):*

the product doesn't give skin irritating, if the right precautionary measures are taken. In any case, wash skin with soap and water after handling parts.

*Eyes (powder)*

Flush eye with cool running water if dust becomes embedded.

*Ingestion: ---*

### **5. Fire fighting measures**

*Extinguishing media:*

CO<sub>2</sub>, extinguishing powder or water jet.

*Fire fighting equipment:*

The product must exceed 600°C for long time, in order to catch fire.

Toxic and irritating materials may be released in a fire. Wear self contained breathing apparatus in case dusts are formed during a structural fire.

*Hazard connected with the product:*

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### **6. Accidental release measures**

*Person related safety precaution:*

Not required

*Measures for environmental protection:*

No special measures are required

*Measures for cleaning/collecting:*

No special measures are required

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### **7. Handling and storage**

*Handling:*

No special measures are required.

*Storage:*

store only in the original container.

### **8. Exposure controls/personal protection**

*General precautions:*

observe the good rules of industrial hygiene and the precautional measures which are usually taken in the handling of the composite materials.

*Respiratory protection:*

respiratory protection is not required, but avoid to breathe powder. Metallic powders could contribute to irritate respiratory track.

*Protective equipment:*

observe the good rules in the handling of composite materials. Gloves are recommended when handling brake parts, because some persons may be sensitive to partially cured phenolic or cashew resins and develop dermatitis type reaction upon skin contact.

*Eye protection:*

not required.

*General hygiene considerations:*

The following general hygiene considerations are recognized as common, good industrial hygiene practices: don't eat, don't drink, don't smoke during handling. Wash hands after use and before handling.

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### **9. Physical and chemical properties**

Form: solid  
Colour: grey-black  
Odor: characteristic  
Melting point: not determined  
Boiling point: not determined  
Flash point: not applicable.  
Self-inflammability: product is not selfigniting.  
Danger of explosion: none  
Density: 2,50 – 3.20 g/cm<sup>3</sup>  
Solubility in water: insoluble

### **10. Stability and reactivity**

*Thermal decomposition:*  
no decomposition if used according to specifications.

*Hazardous decomposition products:*  
Combustion may cause carbon oxides, sulphur oxide.

*Dangerous reaction:*  
No dangerous reactions are known

### **11. Toxicological information**

The product is not subject to classification, according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product, according to our experience and to informations provided to us, does not have any harmful effect.

### **12. Ecological information**

Water hazard: class 0  
The product is stable without environmental toxic effects.

### **13. Disposal considerations**

In accordance with official laws and regulations, the product can be disposed in a controlled tip.  
Must not be disposed with household garbage.

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## **14. Transport information**

The product does not constitute a hazardous substance in national/international road, rail, sea and air transport.

## **15. Regulatory information**

Classification according to EC guidelines: the product is not subject to identification regulation under EC Directives and the Ordinance on Hazardous Materials.

R phrase: none

S phrase: none

### **TSCA (Toxic Substances Control Act)**

All ingredients are listed

## **16. Other information**

These data are based on our present knowledge.

The manufacturer makes no express or implied warranties of any kind, including warranties of merchantability of fitness for particular purpose, with respect to the Friction Material Products or data described herein.

Under no circumstances shall manufacturer be responsible for damages of any nature whatsoever directly or indirectly resulting from or arising out of the publication, use or reliance upon the data contained herein.

### **UP-DATE**

<b>Date</b>	<b>Modification</b>
06/10/2005	Material safety data sheet emission