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MATERIAL SAFE DATA SHEET

Effective Date: November 3, 2004

Code: BRAKE LINING MATERIAL

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: ASBESTOS FREE CERAMIC DISC BRAKE LINING MATERIAL
IDENTIFY BY EDGE CODE: SS-4400-FG

MANUFACTURER'S NAME:

TRW Automotive Espana S.L.
Poligono Ombatillo, s/n
31591 - Corella (Navarra) - Espana

Telephone: 34 948 780 535
Fax: 34 948 780 629
Emergency: 34 948 780 535

SUPPLIER'S NAME:

Rayloc
Division of Genuine Parts Company
3100 Windy Hill Road
Atlanta, GA 30339

REVISION DATE:

Nov. 1, 2012

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SECTION 2: COMPOSITION

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Although several of the ingredients used to formulate this product may be hazardous in their raw state, the manufacturing process results in a solid, infusible product presenting an inert character.

| Components | CAS Number | % | TLV-TWA / (ACGIH) |
|-----------------------------|---------------|-----|-------------------------|
| Aluminum/Iron /Magnesium | 7439-89-6 | <30 | - - |
| Silicate Barium Sulfate | 231-784-4 | <20 | 10 mg/m3 / Note (a) (b) |
| Magnesium Oxide | 1309-48-8 | <10 | 10 mg/m3 / Note (a) |
| Copper Sulfide | 1309-36-0 | <10 | 1 mg/m3 / Note (a) (c) |
| Iron/Stein Sulfide | 7439-89-6 | <10 | 2 mg/m3 / Note (a) (c) |
| Ghaphite | 14808-60-7 | <10 | 2 mg/m3 / Note (a) |

Phenolic Resin

100-97-0

<10

Note (a) F,Xn,R11,R42-43

NOTES: (a) Respirable dust (total) / particled materia.

(b) Respirable particled materia (total) which does not contain asbestos and less 1% cristallyne silica.

(c) Through skin.

SECTION 3: HAZARDS IDENTIFICATION

Main Hazards: Dust Inhalation.

Health effects-Eye: Released dust may cause a light temporary irritation.

Health effects-Skin: Released dust may cause a light irritation by repeated or prolonged contacting.

Health effects-Ingestion: Ingestion may cause light irritation of mouth, throat, and alimentary tract.

Health effects-Inhalation: Dust inhalation may cause irritation of nose, thoat, and respiratoty tract.

SECTION 4: FIRST AID MEASURES

SKIN: Wash with soap and water.

Eyes: Flush immediatley with plenty of water at least during 10 minutes by maintaining the eyes open.

Inhalation: Leave exposure, keep warm and relax.

Advise to Doctor: Treat symptomatically.

Ingestion: Wash mouth with water without inducing vomiting. Request medical attention if necessary.

SECTION 5: FIREFIGHTING MEASURES

Auto -Ignition: This product is intrinsically flame resistant, but in an oxygen enriched atmosphere may ignite at temperatures exceeding 650 C (1.202 F)

Appropriate Extinguishing Media:

Water (with or without aditives), foam, polyvalent chemical powder, and halons.

Inapropriate Extinguishing Media:

Conventiional chemical powder, CO2.

Firefighting Protective Equipment:

Carry portable breathing apparatus.

SECTION 6: MEASURES FOR ACCIDENTAL SCAPE

Personal Precautions: Use appropriate protective clothes.
Environmental Precautions: Avoid material entering into sewers and water system.
Precautions by Spilling: Avoid cleaning using compressed air. Collect the dust by vacuuming or wet mopping. Introduce material into appropriate recipients for its recovery or elimination. Avoid creating dust.

SECTION 7: HANDLING AND STORAGE

Handling: In case of dust release use ventilation by localized exhausting. Avoid inhalation as well as skin and eyes contact with possible resulting dust.

Storage: Store the product in sites free of high humidity.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

VENTILATION: The matching, grinding and abrading operations of this product should be done in a ventilated area, and preferably by using ventilation system with localizing exhausting as control method of the generated dust.
RESPIRATORY PROTECTION: Filtering maske type FFP1 according to EN-149 Norm. marked CE for the EEC countries. For other countries consider local regulations.
HANDS PROTECTION: Wear gloves if skin irritation occurs.
EYE PROTECTION: Wear protective glasses if dusty operations are done.
CORPORAL PROTECTION: Wear overall if dusty operations are done.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid ph: Not applicable
Color: Grey/Black Explosion Hazard: No
Odor: None or phenolic
Autoflammability: At temperatures exceeding 650 C (1.202 F) in oxigen enriched atmospheres.
Combusting Propertierties: No Steam Pressure: N/A
Specific Gravity: 2,90-3,10 g/cm3 Hydrosolubility: Insoluble
Liposolubility: Insoluble
Apportion ratio n-Octanol-Water: N/A

SECTION 10: STABILITY AND REACTIVITY

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Stability: This product is stable at normal temperatures and storage conditions.

Hazardous Decomposition Products: By Pyrolysis: Carbon monoxide, Carbon dioxide, Phenol, Aliphatic hydrocarbons, Cetons, Alcohols, Aromatic Hydrocarbons and Aldehydes.
By Combustion: Carbon monoxide, Carbon dioxide, Formic Acid, Aliphatic and aromatic hydrocarbons, Hydrogen.

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SECTION 11: TOXICOLOGICAL INFORMATION
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Acute Toxicity: No acute toxic effect have been reported from the component substances of the from product released dust.
chronic Toxicity: Prolonged exposure to the from product released dust may cause pneumoconiosis.
Irritation: The from product released dust may cause irritation of the respiratory tract.

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SECTION 12: ECOLOGICAL INFORMATION
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Mobility: The product is insoluble in water.
Persistence/Degradability: The product is biodegradable.
Bioaccumulation Potential: The product is not bioaccumulable.
Ecotoxicity: The product is not toxic for the aquatic species.

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SECTION 13: ELIMINATION
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Product Elimination: Remove in accordance with corresponding state and local regulations.
Elmiation of Waste: Remove in accordance with corresponding state and local regulations.

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SECTION 14: INFORMATION REGARDING TRANSPORT
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ONU - ADR / RID - IMDG - IATA Not Classified

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SECTION 15:REGULATORY INFORMATION
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CE Classification: Health: Not Classified
Physical and chemical characteristics: Not Classified
Environment: Not Classified

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SECTION 16: OTHER INFORMATION
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OTHER DATA:

First MSDS Emission: 11/03/2004

Revised MSDS Data:

Uses and Restrictions: In brake systems for automobiles and
individual vehicles