MERITOR AUTOMOTIVE, INC -- NON-ASBESTOS BRAKE LININGS -- 2530-00-693-1007

Product ID:NON-ASBESTOS BRAKE LININGS MSDS Date:03/01/1999 FSC:2530 NIIN:00-693-1007 Status Code:A MSDS Number: CJSQX === Responsible Party === Company Name: MERITOR AUTOMOTIVE, INC Address:2135 WEST MAPLE ROAD City:TROY State:MI ZIP:48084 Country:US Info Phone Num:248-435-9929 Emergency Ph one Num:248-435-9929 Resp. Party Other MSDS Num.: MSDS3 CAGE:TO398 === Contractor Identification === Company Name: MERITOR AUTOMOTIVE, INC Address:2135 WEST MAPLE ROAD Box:City:TROY State:MI ZIP:48084 Country:US Phone:248-435-9929 CAGE:TO398 Company Name: MERITOR HEAVY VEHICLE SYSTEMS LLC Address:2135 W MAPLE RD Box:City:TROY State:MI ZIP:48084 Country:US Phone:248-435-8207 Contract Num:DLA740-93-M-2139 CAGE:78500

======= Composition/Information on Ingredients ==========

Ingred Name:BA

RIUM SULFATE CAS:7727-43-7 RTECS #:CR0600000 OSHA PEL:15 MG/M3 ACGIH TLV:10 MG/M3

Ingred Name:CLAY

Ingred Name: GRAPHITE

Ingred Name: GLASS FIBERS

Ingred Name:PHENOLIC RESIN CAS:108-95-2 RTECS #:SJ3325000 OSHA PEL:19 MG/M3;5 PPM ACGIH TLV:19 MG/M3;5 PPM EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:STEEL FIBERS (IRON)

Ingred Name:ALUMINUM OXIDE CAS:1344-28-1 RTECS #:BD1200000 OSHA PEL:15 MG/M3 ACGIH TLV:10 MG/M3

Ingred Name:COPPER CAS:7440-50-8 RTECS #:GL5325000 OSHA PEL:1 MG/M3 ACG IH TLV:1 MG/M3 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:TIN CAS:7440-31-5 RTECS #:XP7320000 ACGIH TLV:2 MG/M3

Ingred Name:QUARTZ CAS:14808-60-7 RTECS #:VV7330000 OSHA PEL:see Table Z-3 ACGIH TLV:0.1 MG/M3

Ingred Name: MINERAL WOOL FIBER

Ingred Name:CRISTOBALITE CAS:14464-46-1 RTECS #:VV7325000 OSHA PEL:see Table Z-3 ACGIH TLV:0.05 MG/M3

Ingred Name:WOLLASTONITE CAS:13983-17-0 RTECS #:ZC9750000 V:10 MG/M3

Ingred Name:FIBERFRAX (CERAMIC FIBER) CAS:1302-76-7 RTECS #:BD1450000

Ingred Name:MOLYBDENUM DISULFIDE CAS:1317-33-5 RTECS #:QA4697000

Ingred Name:ARAMID FIBER CAS:24938-64-5 RTECS #:TQ9875000

Ingred Name:MAGNESIUM OXIDE CAS:1309-48-4 RTECS #:OM3850000 OSHA PEL:15 MG/M3 ACGIH TLV:10 MG/M3

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO Health Hazar

ds Acute and Chronic:PROGLONGED EXPOSURE TO DUST MAY RESULT IN CHRONIC BRONCHITIS, SHORTNESS OF BREATH OR DECREASED LUNG FUNCTION. SHORT-TERM EFFECTS FROM INHALATION MAY INCLUDE MUCOUS MEMBRANE IRRITATION AND IRRITATION T O THE UPPER RESPIRATOR TRACT.

Explanation of Carcinogenicity:IARC HAD FOUND THAT CRYSTALLINE SILICA, AMORPHOUS SILICA, CERAMIC FIBERS, OR WOLLASTONITE MAY CAUSE CANCER IN HUMAN. CRYSTALLINE SILICA IS ALSO LISTED BY THE NTP AS A SUBSTANCE "WHICH MAY REASO

NABLY B E ANTICIPATED" TO BE CARCINOGENIC.

Effects of Overexposure:SYMPTOMS OF PNEUMO-CONIOSIS, SILICOSIS, FIBROSIS AND LUNG CANCER INCLUDE SHORTNESS OF BREATH, DRY COUGH,FATIGUE ON EXERCISE,CHEST PAINS,CHEST TIGHTNESS AND VAGUE FEELINGS OF SICKNESS. SUCH SYMPTOMS MA Y NOT MANIFEST THEMSELVES UNTIL 15 TO 20YEARS OR MORE AFTER FIRST EXPOSURE. SKIN:IRRITATION & INFLAMMATION DUE TO MECHANICAL ACTION FROM DUST. EYES:EXPOSURE TO DUST MAY CAUSE IRRITATION. REPEATED OR P ROL ONGED EXPOSURE MAY CAUSE CONJUNCTIVITIS. INHALATION: SHORT TERM EFFECTS MAY INCLUDE MUCOUS MEMBRANE IRRITATION AND IRRITATION TO THE UPPER RESPIRATOR TRACT.

First Aid:SINCE THE INDIVIDUAL PARTICLES ARE DISPERSED IN A RESIN MATRIX WHICH HAS BEN PROCESSED INTO A THERMOSET COMPOSITE, EMERGENCY AND FIRST AID PROCEDURES FOR INHALATION SHOULD NOT BE NECESSARY. EYES: WAS H EYES IMMEDIATELY WITH LARGE AMOUNTS OF

WATER, OCCASIONALLY LIFTING UPPER AND LOWER LIDS. IN CASE OF EYE IRRITATION, GET MEDICAL ATTENTION.

Extinguishing Media:NEGLIGIBLE FIRE HAZARD IN METALLIC FORM. USE DRY SAND, DRY DOLOMITE, DRY GRAPHITE, SODIUM CHLORIDE. DO NOT USE WATER. AVOID BREATHING FUMES FROM BURNING MATERIALS

Spill Release Procedures:STEPS TO BE TAKEN IN CASE DUST O R WASTE

CONTAINING POTENTIALLY HAZARDOUS MATERIALS IS RELEASED OR SPILLED. AVOID CREATING AIRBORNE DUST. USE A VACUUM WITH A HEPA FILTER OR REMOVE BY USING WATER. DO NO T DRY SWEEP OR USE COMPRESSED AIR ON DRY MATERIAL. WEAR PROTECTIVE EQUIPMENT

Handling and Storage Precautions:OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE. Other Precautions:NONE PROVIDED BY MF R.

======= Exposure Controls/Personal Protection ==========

Respiratory Protection:WEAR RESPIRATORY PROTECTION AT ALL TIMES DURING BRAKE SERVICING BEGINNING WITH REMOVAL OF THE WHEELS.WEAR A RESPIRATOR EQUIPPED WITH A HIGH-EFFICIENCY (HEPA) FILTER APPROVED BY NIOSH OR MSHA, IF THE E XPOSURE LEVELS EXCEED OSHA OR RECOMMENDED MAXIMUM LEVELS. EVEN WHEN EXPSOURES ARE EXPECTED TO BE WITHIN THE MAXIMUM ALLOWABLE LEVELS, WEARING SUCH A RESPIRATOR Ventilation:ALL FEASIB LE ENIGNEERING CONTROLS AND WORK PRACTICES SHOULD BE INSTITUTED TO REDUCE WORKER EXPOSURE LEVELS AS LOW AS POSSIBLE Protective Gloves: PROTECTIVE GLOVES FOR PERSONS SENSITIVE TO PHENOLIC **RESINS AND FIBERGLASS** Eye Protection: USE OF EYE PROTECTION IS GOOD PRACTICE AT ALL TIMES AND NECESSARY WHEN DRILLING Other Protective Equipment: LONG-SLEEVED SHIRTS AND OTHER PROTECTIVE CLOTHING ARE RECOMMENDED FOR PERSONS WITH SKIN SENSITIVE TO PHENOLIC RESINS AND FIBERGLASS. Work Hygienic Pra ctices:NONE PROVIDED BY MFR. Supplemental Safety and Health NONE PROVIDED BY MFR. HCC:T6 Spec Gravity:2-4 GRAMS/CC Solubility in Water: INSOLUBLE Appearance and Odor:GRAY-BLACK SOLID Stability Indicator/Materials to Avoid:YES NONE PROVIDED BY MFR. Stability Condition to Avoid: THE INDIVIDUAL PARTICLES ARE DISPERSED IN A RESIN MATRIX, WHICH HAS BEEN PROCES SED INTO A THERMOSET COMPOSITE, NO KNOWN REACTIVITY HAZARDS EXIST WHEN THE PRODUCT IS **USED AS INTENDED** Hazardous Decomposition Products: THERMAL DECOMPOSITION MAY RELEASE TOXIC AND/OR HAZARDOUS GASES Conditions to Avoid Polymerization: HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES OR PRESSURES. Waste Disposal Methods: OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STO RING OR DISPOSING OF THIS SUBSTANCE. Disclaimer (provided with this information by the compiling agencies):

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