Product ID: ASBESTOS-CONTAINING BRAKE LININGS
MSDS Date: 09/25/1986
FSC: 2530
NIIN: 00-915-8590
MSDS Number: BQQGH

### Responsible Party ###
Company Name: ROCKWELL INTERNATIONAL CORP
City: LOUISVILLE
State: KY
Country: US
Info Phone Num: 606-525-3809
Emergency Phone Num: 606-371-3874
CAGE: 6R673

### Contractor Identification ###
Company Name: HYSTER CO
Address: 1813 E VOORHEES ST
Box: City: DANVILLE
State: IL
ZIP: 61832-2112
Country: US
CAGE: 1HS95
Company Name: ROCKWELL INTERNATIONAL CORP
Box: City: LOUISVILLE
State: KY
Country: US
Phone: 606-371-3874
CAGE: 6R673

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

**Ingred Name:** ASBESTOS, CHRYSOTILE
CAS: 12001-29-5
RTECS #: CI6478500
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 0.2 FIBERS/CC
ACGIH TLV: 2 FIBERS/CC; A1; 9293

**Ingred Name:** SILICA, SILICATES, CRYSTALLINE - TRIPOLI
CAS: 1317-95-9
RTECS #: VV7336000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: SEE TABLE Z3
ACGIH TLV: 0.1 MG/M3 RDUST; 9293

**Ingred Name:** CARBON BLACK
CAS: 1333-86-4
RTECS #: FF5800000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 3.5 MG/M3
ACGIH TLV: 3.5 MG/M3; 9293

**Ingred Name:** GRAPHITE, SYNTHETIC, COAL, COKE
CAS: 7440-44-0
RTECS #: FF5250100
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 2 MG/M3 TDUST; 9293

Ingred Name: PHENOLIC, ISOPRENE OR CASHEW RESINS
Other REC Limits: 5 MG/M3
OSHA PEL: 15 MG/M3 TOTAL DUST
ACGIH TLV: 10 MG/M3 TOTAL DUST

Ingred Name: WOOD FLOUR AND OTHER FILLERS
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 5 MG/M3/ 10 STEL
ACGIH TLV: 1 MG/M3

Ingred Name: IRON OXIDE
CAS: 1309-37-1
RTECS #: NO7400000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 10 MG/M3 (FE)
ACGIH TLV: 5 MG/M3 (FE); B2; 9293

Ingred Name: ZINC (SARA III)
CAS: 7440-66-6
RTECS #: ZG8600000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 10 MG ZNO/M3
ACGIH TLV: 10 MG ZNO/M3; 9293
EPA Rpt Qty: 1000 LBS
DOT Rpt Qty: 1000 LBS

Ingred Name: ALUMINUM (SARA III)
CAS: 7429-90-5
RTECS #: BD0330000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15MG/M3 DUST/5 FUME
ACGIH TLV: 10MG/M3 DUST; 9293

Ingred Name: MAGNESIUM OXIDE
CAS: 1309-48-4
RTECS #: OM3850000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15 MG/M3 PARTICULATE
ACGIH TLV: 10 MG/M3; TDUST; 9293

Ingred Name: COPPER (11) OXIDE
CAS: 1317-38-0
RTECS #: GL7900000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 0.1MG/M3 FUME/1 DUST
ACGIH TLV: 0.2MG/M3 FUME; 9293

Ingred Name: CALCIUM CARBONATE (MARBLE) (LIMESTONE)
CAS: 1317-65-3
RTECS #: EV9580000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9293

Ingrid Name: FLUORIDES
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 2.5 MG/M3
ACGIH TLV: 2.5 MG/M3

Ingrid Name: RUBBER
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15 MG/M3 TOTAL DUST
ACGIH TLV: 10 MG/M3 TOTAL DUST

Ingrid Name: BARIUM COMPOUNDS
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 0.5 MG/M3
ACGIH TLV: 0.5 MG/M3; 9293

Ingrid Name: IRON
CAS: 6596-57-0
Other REC Limits: NONE RECOMMENDED

Ingrid Name: ZINC OXIDE
CAS: 1314-13-2
RTECS #: ZH4810000
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15MG/M3 TDUST/5 FUME
ACGIH TLV: 10MG/M3 TDUST; 9293

Ingrid Name: ALUMINUM OXIDE
Other REC Limits: NONE RECOMMENDED

----------------------- Hazards Identification -----------------------

Routes of Entry: Inhalation: YES  Skin: NO  Ingestion: YES
Reports of Carcinogenicity: NTP: YES  IARC: YES  OSHA: YES
Health Hazards Acute and Chronic: ACUTE: METAL DUSTS CAN IRRITATE EYES
AND UPPER RESPIRATORY SYSTEM. CASHEW RESINS MAY CAUSE DERMATITIS.
CHRONIC: DUST FROM ABRASIVE ACTIONS CONTAIN ASBESTOS FIBERS.
CHRONIC OVEREXPOSURE TO AIRBORNE FIBERS MAY LEAD TO ASBESTOSIS AND
MESOTHELIOMA. SMOKING COMBINED WITH FIBER INHALATION GREATLY
INCREASES LUNG CANCER RISK.
LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.
Effects of Overexposure: INHALATION: COUGHING, WHEEZING, SHORTNESS OF
BREATH, IMPAIRED PULMONARY FUNCTION. SKIN: ITCHING, RASH. EYES:
MECHANICAL IRRITATION FROM AIRBORNE DUST. INGESTION:
GASTROINTESTINAL DISTURBANCES. SUCH SYMPTOMS DO NOT MANIFEST
THEMSELVES UNTIL 15 TO 20 YEARS AFTER FIRST EXPOSURE.
Medical Cond Aggravated by Exposure: INDIVIDUALS WITH PRE-EXISTING SKIN
OR RESPIRATORY CONDITIONS MAY BE MORE AT RISK FROM EXPOSURE TO
DUSTS OF THIS PRODUCT. WILSON'S DISEASE MAY BE AGGRAVATED BY
EXPOSURE TO COPPER.

----------------------- First Aid Measures -----------------------

First Aid: INHALATION: REMOVE TO FRESH AIR. OBTAIN MEDICAL ADVICE. SKIN:
WASH EXPOSED AREA WITH SOAP AND WATER. EYES: FLOOD WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. INGESTION: DRINK WATER. DO NOT INDUCE VOMITING. SEE DOCTOR. OTHER: CHANGE CLOTHING AS REQUIRED TO AVOID CARRYING DUST PARTICLES INTO OTHER AREAS.

---------------- Fire Fighting Measures ----------------

Flash Point: NONE
Extinguishing Media: WATER OR CLASS A, B OR C EXTINGUISHER.
Fire Fighting Procedures: COMBUSTION PRODUCTS OF THIS MATERIAL MAY BE TOXIC. USE A SELF-CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRES.
Unusual Fire/Explosion Hazard: NONE SPECIFIED BY MANUFACTURER.

--------------- Accidental Release Measures --------------

Spill Release Procedures: USE PROPER PERSONAL PROTECTION. VACUUM OR WET CLEAN IF DUST IS INVOLVED. ANY VACUUM SYSTEM SHOULD BE EQUIPPED WITH AN OUTLET "HEPA" FILTER TO PREVENT REINTRODUCING ASBESTOS FIBERS TO THE ATMOSPHERE. DO NOT USE BROOMS OR COMPRESSED AIR ON DRY MATERIAL
Neutralizing Agent: NOT APPLICABLE.

---------------- Handling and Storage ---------------------

Handling and Storage Precautions: AVOID SCRAPING OR SCRATCHING BRAKE LININGS OR OTHERWISE CREATING DUST DURING ASSEMBLY. BRAKE SERVICING SHOULD BE DONE IN AREA SET ASIDE FROM OTHER AREA
Other Precautions: DURING BRAKE MAINTENANCE, CLEAN BRAKE PARTS WITH VACUUM WITH A HEPA FILTER AND THEN WIPE WITH DAMP RAGS TO REMOVE ASBESTOS-CONTAINING RESIDUE. DISPOSE OF USED RAGS WHILE STILL WET IN SEALED IMPERMEABLE BAGS.

------------------ Exposure Controls/Personal Protection -------------------

Respiratory Protection: IF EXPOSURES EXCEED ESTABLISHED LIMITS, A NIOSH/MSHA APPROVED RESPIRATOR FOR ASBESTOS SHOULD BE USED. CONSULT YOUR SAFETY OFFICE/INDUSTRIAL HYGIENIST PERSONNEL FOR GUIDANCE FOR THE TASK AT HAND.
Ventilation: LOCAL EXHAUST IS RECOMMENDED IN SITUATIONS WHERE DUST IS GENERATED BY ABRASIVE ACTIONS, ABRASION OR OTHER MEANS.
Protective Gloves: AS REQUIRED FOR TASK AT HAND.
Eye Protection: SAFETY GLASSES W/SIDE SHIELDS OR GOGGLES
Other Protective Equipment: AS REQUIRED FOR TASK AT HAND, AND THE GUIDANCE SET FORTH BY YOUR SAFETY OFFICE OR INDUSTRIAL HYGIENIST PERSONNEL.
Work Hygienic Practices: DO NOT INHALE DUST CREATED BY ABRADING ACTIONS. USE FULL PROTECTION AGAINST AIRBORNE FIBERS. AVOID AIRBORNE DUST CREATION
Supplemental Safety and Health
OSHA REQUIRES THAT WORKERS EXPOSED TO ASBESTOS BE TRAINED ANNUALLY AS TO ITS POTENTIAL HAZARDS AND THE MEANS OF REDUCING THOSE HAZARDS. IT ALSO REQUIRES MONITORING EVERY SIX MONTHS OF WORKER ASBESTOS EXPOSURE IF IT MAY REASONABLY BE EXPECTED TO BE ABOVE 0.1 F/CC.

----------------- Physical/Chemical Properties ------------------
HCC:T7
Spec Gravity: 1.6-3.0
Evaporation Rate & Reference: NONE
Solubility in Water: NEGLIGIBLE
Appearance and Odor: SOLID, LIGHT TAN TO DARK GRAY IN COLOR.
Percent Volatiles by Volume: NONE

================= Stability and Reactivity Data =================

Stability Indicator/Materials to Avoid: YES
AVOID STRONG OXIDIZERS FOR LININGS WITH RUBBER CONTENT.
Stability Condition to Avoid: AVOID CREATING AND BREATHING DUST.
Hazardous Decomposition Products: INCOMPLETE COMBUSTION MAY CREATE TOXIC FUMES.

==================== Disposal Considerations ====================

Waste Disposal Methods: WASTE CONTAINING ASBESTOS OR OTHER HAZARDOUS MATERIALS SHOULD BE COLLECTED AND DISPOSED OF IN SEALED, IMPERMEABLE BAGS OR OTHER CLOSED, IMPERMEABLE CONTAINERS WITH PROPER LABELS IN ACCORDANCE WITH APPLICABLE REGULATIONS.

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