

ROCKWELL INTERNATIONAL CORP -- ASBESTOS-CONTAINING BRAKE LININGS --  
2530-00-915-8590

=====  
===== Product Identification =====

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:HYSSTER 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 N

ame: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

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

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

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

MG/M3; 9293

Ingred Name:IRON

CAS:6596-57-0

Other REC Limits:NONE RECOMMENDED

Ingred 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

Ingred 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.

Explanation of Carcinogenicity:CONTAINS A [1332-21-4] WHICH IS

LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.

Effects of Overexposure

re: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.

Ventilat

ion: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:NEGLIGIB

LE

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 Met

hods: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 APP LICIALE REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information

to be accurate and

disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.