MATERIAL SAFETY DATA SHEET Printed: 11/28/94 Page: 1 For Coatings, Resins and Related Materials For Customer: 196952 MARTIN ENGINEERING COMPANY Revised: 11/23/94 ______ SECTION I - PRODUCT IDENTIFICATION Manufacturer: FERRO CORPORATION - PDI Information Phone: 1-908-287-1930 gg Court Emergency Phone: 1-216-641-5324 CHEMTREC Phone: 1-800-424-9300 NJ 08817 54 Kellogg Court Edison ! HMIS Hazard Ratings: Health - 0 Product Class: ! none -> extreme Fire - 1 ! 0 ---> 4 Reactivity - 0 Trade Name : BLACK Product Code: 33-81023 C.A.S. Number: MIXTURE ! Personal Protection - B Customer's No: 33-81023 SECTION II - HAZARDOUS INGREDIENTS Weight --- Exposure Limits ---- VP
CAS # % ACGIH/TLV OSHA/PEL mm HG Ingredients Carbon Black 1333-86-4 5-20 3.5 mg/M3 3.5 mg/M3 N/AP *** ALL Ingredients in this product are listed in the T.S.C.A. Inventory. SECTION III - PHYSICAL DATA ______ Boiling Range: 250 - 250 Deg. C
Evap. Rate: Non Volatile
Volatiles vol % 0.0 Wgt% 0.0

Vapor Density: Heavier than Air.
Liquid Density: Heavier than Water.
Wgt per gallon: 10.00 Pounds.
Spec. Gravity: 1.20048 Appearance: VISCOUS BLACK/GREY LIQUID OR PASTE SECTION IV - FIRE AND EXPLOSION HAZARD DATA _______ Flammability Class: Flash Point: 187.8 C TOC LEL: UEL: 0.00% -EXTINGUISHING MEDIA: Use foam, carbon dioxide or dry chemical -SPECIAL FIREFIGHTING PROCEDURES Extinguish flame from perimeter inward to main body of fire. Etinguisher Media: ABC Extinguisher, Carbon Dioxide, Foam, Water. Special fire fighting procedures: Water or foam may cause frothing when applied to liquids having flash points above 100 degrees C. The frothing may be quite violent and endanger the life of the firefighter particularly when solid streams are directed into the hot burning liquid. ESTER POLYOL: Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved selfcontained breathing apparatus and protective clothing. If the material contains Carbon then wear a self-contained breathing apparatus for protection against possible exposure to Co or Co2 during a fire.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (cont.)

-UNUSUAL FIRE & EXPLOSION HAZARDS:

Carbon monoxide and carbon dioxide are products of combustion from Carbon Black. It may not be obvious that the Carbon Black is burning unless the material is stirred and sparks are apparent.

SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL:

See section II

-EFFECTS OF OVEREXPOSURE:

CARBON BLACK:

ACUTE: If the TLV of Carbon dust is exceeded, mechanical over-loading of respiratory passages and eye irritation is possible. CHRONIC: Nuisance dust effects only--although Carbon Black can contain traces of polynuclear aromatic compounds (PNA), some of which in isolation may be carcinogenic, these are very strongly adsorbed on the Carbon Black particles. Evidence currently indicates such adsorption renders them biologically inactive. Carbon Black is not considered a potential carcinogen by IARC or OSHA nor is it listed in NTP Annual Report on Carcinogens. Epidemiological studies of workers in this industry have shown no significant health effects due to occupational exposure.

-FIRST AID:

INGESTION: Induce vomiting - Consult physician
EYE CONTACT: Flush well with cold water - Consult physician
SKIN CONTACT: Immediately wash skin with soap and plenty of
water. Remove contaminated clothing and shoes. Wash or clean
before reuse.

Inhalation of Carbon dust: Remove to fresh air.

SECTION VI - REACTIVITY DATA

STABLITY: [] Unstable [x] Stable
HAZARDOUS POLYMERIZATION: [] May occur [x] Will not occur
-INCOMPATIBILITY:

ESTER POLYOL: Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.

-CONDITIONS TO AVOID:

Keep materials with ester polyol from strong oxidizers.

CARBON: Excessive heat or flame. May react upon contact with strong oxidizers such as chlorates, bromates and nitrates.

-HAZARDOUS DECOMPOSITION PRODUCTS:

Combustion will produce carbon dioxide and carbon monoxide. CARBON: Carbon monoxide, carbon dioxide and small amounts of sulfur containing gases when burning.

Dispose of in accordance with Federal, State and Local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION:

-RESPIRATORY PROTECTION: Where dust may be present, an approved NIOSH/MSHA dust respirator is recommended.

-VENTILATION: Mechanical Ventilation Suggested.

-PROTECTIVE GLOVES: Chemical workers gloves is recommended.

-EYE PROTECTION: Chemical goggles as needed to prevent eye contact. -OTHER PROTECTIVE EOUIPMENT:

Practice good hygiene, wash hands and face before eating or smoking. Launder clothing before reuse.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in tightly closed containers in cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles.

Keep away from food and feed products. -OTHER PRECAUTIONS:

None

SECTION X - REGULATORY INFORMATION -SARA TITLE III SECTION 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning

and Community Right To Know Act of 1986 and of 40 CFR 372: Percent by Chemical Name CAS# Weight

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SECTION X - REGULATORY INFORMATION (cont.)

OP 65 (CARCINOGEN): WARNING: This product contains a chemical known to the state

of California to cause cancer. CAS# Chemical Name

None

ROP 65 (REPRODUCTIVE TOXICANTS): WARNING: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

CAS# Chemical Name None

PROP 65 (BOTH CARCINOGEN AND REPRODUCTIVE TOXICANTS): WARNING: This product may contain a chemical known to the state of California to cause cancer or birth defects or other reproductive ha

Chemical Name CAS# None

-MASSACHUSETTS SUBSTANCE LIST: Unless specified below, this substance is not listed.

-CERCLA - 40 CFR 302.4: Unless specified below, this substance is not listed.

-RCRA - 40 CFR 261: find below, this material as a discarded product is · 0 0ED 261.