

MATERIAL SAFETY DATA SHEET

Page 1

FERRO Code Number: 33-81023
 MSDS Rev.: 06-APR-1999

MSDS Print Date: 11/10/05

SECTION I - PRODUCT AND COMPANY INFORMATION

Product Name: BLACK
 CAS Number MIXTURE

Company Identification: Ferro Corporation
 L. C. & D. Division
 54 Kellogg Court
 Edison NJ 08817

Contact: Dave Malysa
 Telephone/Fax: 732-287-1930 732-287-1943
 Emergency Phone (24 Hour): FERRO'S Emergency Telephone
 1-216-641-5324
 Chemtrec (24 Hour): 1-800-424-9300
 Preparer James H. Fisher
 Data Coordinator

Trade Name BLACK

SECTION II - HAZARDOUS INFORMATION

Ingredient Name	CAS Number	Percent	TSCA Inv
Carbon Black	1333-86-4	10 - 30	Y

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory

SECTION III - PHYSICAL DATA

Boiling Point: Not Available
 Vapor Pressure (mmHg): 1.@ 68.°F
 Evaporation Rate:
 % Volatile Weight Not Applicable
 % Volatile Volume Not Applicable
 Specific Gravity: 1.201

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class
 Flash Point: 388.4°F
 Tag Open Cup
 Explosive Range: Not Available

EXTINGUISHING MEDIA:
 Use foam, carbon dioxide or dry chemical
 SPECIAL FIREFIGHTING PROCEDURES

FERRO Code Number: 33-81023
MSDS Rev.: 06-APR-1999

MSDS Print Date: 11/10/05

PREVENT runoff from entering streams, sewers or drinking water supply.
Extinguish flame from perimeter inward to main body of fire.

Extinguisher 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 self-contained breathing apparatus and protective clothing.

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 apparant.

In special test procedures, with high dust concentrations and the application of a significant energy source, a Carbon Black/air mixture can explode. The following data has been determined: Minimumm

Ignition Energy: >1kJ, Minimum Ignition Temperature (cloud): >546 C, Minimum Ignition Temperature (layer): >320 C.

SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL:

See Section VIII.

EFFECTS OF OVEREXPOSURE:

CARBON BLACK (DRY):

ACUTE: If the TLV of Carbon dust is exceeded, mechanical overloading of respiratory passages and eye irritation is possible.

CHRONIC: Nuisance dust effects only--although Carbon Black can contain traces of polynuclear aromatic compounds (PNAs), some of which in isolation may be carcinogenic, these are very strongly adsorbed on the Carbon Black particles. Evidence currently indicates such adsorption (of PNAs) renders them biologically inactive.

CARBON BLACK (LIQUID SYSTEMS):

The acute/chronic effects listed above are minimized in liquid systems due to the vehicle on the carbon black. Sanding cured products containing Carbon Black can cause dusting, which can result in exposure and hazards as listed above.

Carbon Black is now considered a potential carcinogen by IARC (reclassified as a group 2B carcinogen); known animal carcinogen, potential human carcinogen. This reclassification was approved by IARC on April 12, 1996.

Carbon Black has not been listed by the National Toxicology Program (NTP) or the Occupational Safety & Health Administration (OSHA). The National Institute of Occupational Safety & Health (NIOSH) criteria document on Carbon Black recommends that only Carbon Blacks with PNA levels greater than 0.1% be considered suspect carcinogens.

MATERIAL SAFETY DATA SHEET

FERRO Code Number: 33-81023

MSDS Rev.: 06-APR-1999

MSDS Print Date: 11/10/05

FIRST AID:

INHALATION: If inhaled, move individual to fresh air. Make comfortably warm but not hot. Use oxygen or artificial respiration as required. See a physician if irritation is present or persists.

SKIN: In case of contact, remove contaminated clothing. Wash thoroughly with soap & plenty of water. See a physician if irritation is present or persists. Launder contaminated clothing before reuse.

EYE: Immediately flush eyes with plenty of water for at least 15 minutes and get prompt medical attention.

INGESTION: If swallowed, call a physician immediately. Induce vomiting only at the instructions of a physician. Never give anything by mouth to an unconscious person.

SECTION VI - STABILITY AND REACTIVITY DATA

Stability: This product is stable

Hazardous Polymerization: Hazardous polymerization will not occur

INCOMPATIBILITY:

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

CONDITIONS TO AVOID:

Prevent exposure to high temperatures greater than 572 F (>300 C) and open flames. Decomposition: > 572 F (>300 C)

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:

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

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Confine spill. Transfer to secure containers where necessary, Collect using absorbent media. Flush area with hot water and detergent.

WASTE DISPOSAL METHOD:

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

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
Carbon Black	3.50 mg/M3	N/est	N/est	N/est	3.50 mg/M3

FERRO Code Number: 33-81023
MSDS Rev.: 06-APR-1999

MSDS Print Date: 11/10/05

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 EQUIPMENT:

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:**

Avoid contact with eyes, skin, clothing. Avoid breathing vapor, mist or spray. Use with good ventilation. Wash thoroughly after handling. Store in cool, dry area in closed containers away from incompatible materials. Store away from sunlight, heat, sparks and open flames. Protect containers against physical damage. Do not smoke in work area. Do not store near food or feed.

OTHER PRECAUTIONS:

Since emptied containers retain product residues (vapor, liquid or solid), all hazard precautions listed in the MSDS should be observed!

SECTION X - REGULATORY INFORMATION**MASSACHUSETTS SUBSTANCE LIST:**

Trace quantities of substances which are listed on the Massachusetts Hazardous Substance List may be found in this product.

DISCLAIMER:

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.