

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OSHA No. 44-R-1337

MATERIAL SAFETY DATA SHEET

Revised: 3/25/85

SECTION I

MANUFACTURER'S NAME Engelhard Corporation		EMERGENCY TELEPHONE NO. 617-695-7811
ADDRESS (Number, Street, City, State, and ZIP Code) Route 152, Plainville, MA 02762		
CHEMICAL NAME AND SYNONYMS N.A.		TRADE NAME AND SYNONYMS Black Flux
CHEMICAL FAMILY Contains Potassium, Boron and Fluorine in a definite ratio as salts		FORMULA N.A.

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Upper)	ALLOYS AND METALLIC COATINGS	%	TLV (Upper)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS	Fluorides	14	2.5 mg/ CuFt Air		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Upper)
Potassium Tetraborate	- CAS #12228-88-5		SDS (Sodium Dodecyl Sulfate)		
Boric Acid	- " #10043-35-3		Boron	- " #7440-42-8	
Potassium Pentaborate	- " #12229-13-9				
Potassium Bifluoride	- " # 7789-29-9				

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N.A.	SPECIFIC GRAVITY (H ₂ O = 1)	1.2
VAPOR PRESSURE (mm Hg.)	N.A.	PERCENT VOLATILE BY VOLUME (%)	N.A.
VAPOR DENSITY (AIR = 1)	N.A.	EVAPORATING RATE (_____ = 1)	N.A.
SOLUBILITY IN WATER			
APPEARANCE AND ODOR Black creamy paste - odorless			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

2.5 mg (fluoride fumes) per cubic meter of air while brazing

EFFECTS OF OVEREXPOSURE

Inhalation of fumes can cause irritation to eyes, nose and throat.

Avoid contact with eyes and skin. Do not take internally.

EMERGENCY AND FIRST AID PROCEDURES

Skin contact - Flush the flux off skin with water.

Eye contact - Flush eyes with plenty of water for at least 15 minutes.
Get medical attention.

Respiratory system - throat irritation.
Get medical attention if difficulty with breathing or

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) N.A.

HAZARDOUS DECOMPOSITION PRODUCTS

Decomposes to fluoride when heated to brazing temperature.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush with plenty of water to dilute the flux. The product is nonflammable.

WASTE DISPOSAL METHOD

Dilute with water.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

In confined space use air supplied respirator.

VENTILATION	LOCAL EXHAUST	SPECIAL
	X	N.A.
	MECHANICAL (General)	OTHER
	X	

PROTECTIVE GLOVES X **EYE PROTECTION** X

OTHER PROTECTIVE EQUIPMENT
Provide good ventilation.

SECTION IX - SPECIAL PRECAUTIONS N.A.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

OTHER PRECAUTIONS