MATERIAL SAFETY DATA SHEET

PRODUCT NAME: GRAPHITE ETCHING INK  
PRODUCT CODE: 02GY001  
HMIS CODES: H F R P  
1 1 0 C

-----------  SECTION I  -  MANUFACTURER IDENTIFICATION  -----------

MANUFACTURER'S NAME: DANIEL SMITH INC.  
ADDRESS: 4130 1ST AVENUE SOUTH, SEATTLE, WASHINGTON 98134  
EMERGENCY PHONE: (206) 223-9599  
INFORMATION PHONE: (206) 223-9599  
DATE REVISED: 07-26-90  
NAME OF PREPARER: RONALD W. HARMON  
REASON REVISED: NEW

-------  SECTION II  -  HAZARDOUS INGREDIENTS/SARA III INFORMATION  -------

HAZARDOUS COMPONENTS/WEIGHT PERCENT  
OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL  ACGIH TLV  OTHER  LD50 SPECIES & ROUTE  LC50 SPECIES & ROUTE

*** NO REPORTABLE QUANTITIES OF INGREDIENTS ARE PRESENT ***

*** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present. ***
SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A
VAPOR DENSITY: NO DATA
EVAPORATION RATE: NO DATA
COATING V.O.C.: NO DATA
SOLUBILITY IN WATER: NON-SOLUBLE
APPEARANCE AND ODOR: GRAY OILY PASTE
FREEZING POINT: NOT KNOWN
COEFFICIENT OF WATER/OIL DIST: N/A
PH: N/A
ODOR THRESHOLD: N/A

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A
METHOD USED:
FLAMMABLE LIMITS IN AIR BY VOLUME-
LOWER: NO DATA
UPPER: NO DATA

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL

SPECIAL FIREFIGHTING PROCEDURES
WATER SPRAY MAY BE INEFFECTIVE. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE EXPLOSION WHEN EXPOSED TO EXTREME HEAT. FIREFIGHTERS SHOULD USE SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHES

UNUSUAL FIRE AND EXPLOSION HAZARDS
NONE

FLAMMABILITY - T.D.G.R. CLASS

SENSITIVITY TO IMPACT
NONE KNOWN

SENSITIVITY TO STATIC DISCHARGE
NONE KNOWN

SECTION V - REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID
EXCESSIVE TEMPERATURE, DIRECT HEAT

INCOMPATIBILITY (MATERIALS TO AVOID)
STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
NONE KNOWN

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Inhalation: None possible

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Eye contact: May result in irritation, redness, tearing, blurred vision.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Skin contact: May result in irritation, redness, dermatitis.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Ingestion: May result in nausea, vomiting.

HEALTH HAZARDS (ACUTE AND CHRONIC)
Inhalation—none possible. Eye contact—irritation, redness, tearing, and blurred vision. Skin contact—irritation, redness, and dermatitis. Ingestion—nausea and vomiting. No chronic health effects.

CARCINOGENICITY: NTP? NO  IARC MONOGRAPHS? NO  OSHA REGULATED? NO

TERATOGENICITY
None.

MUTAGENICITY
None.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS
None.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
None known.

EMERGENCY AND FIRST AID PROCEDURES
Inhalation—remove individual to fresh air. Eye contact—flush with water for at least 15 minutes; get medical attention if necessary. Skin contact—wash thoroughly with soap and water; get medical attention if necessary. Ingestion—do not induce vomiting; get medical attention.
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
ELIMINATE ALL SOURCES OF IGNITION, PROVIDE GOOD VENTILATION. SOAK UP SPILL WITH ABSORBENT MATERIAL AND REMOVE TO OPEN AIR.

WASTE DISPOSAL METHOD
CONSULT LOCAL, STATE, AND FEDERAL HAZARDOUS WASTE REGULATIONS BEFORE DISPOSING INTO APPROVED HAZARDOUS WASTE LANDFILLS. OBEY RELEVANT LAWS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
STORE AWAY FROM FIRE AND FLAME, KEEP CONTAINERS CLOSED.

OTHER PRECAUTIONS
NONE

MASTER

SECTION VIII - CONTROL MEASURES

RESPIRATION
NONE REQUIRED WITH

VENTILATION
USE ONLY IN AREAS WITH ADEQUATE VENTILATION.

PROTECTIVE GLOVES
IMPERMEABLE CHEMICAL HANDLING GLOVES FOR SKIN PROTECTION (RUBBER OR VINYL).

EYE PROTECTION
FACE SHIELD OR GOGGLES, IF EYE CONTACT IS PROBABLE.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
IMPERMEABLE APRON OR PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT.

WORK/HYGIENIC PRACTICES
NORMAL CLEAN-UP PROCEDURES.

SECTION IX - DISCLAIMER

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