

MATERIAL SAFETY DATA SHEET

ASSORTED ETCHING INK CA

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

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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

OSHA PEL

OCCUPATIONAL EXPOSURE LIMITS

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

SPECIFIC GRAVITY (H2O=1): 1.2
pH: N/A
ODOR THRESHOLD: N/A

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

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

METHOD USED:

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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