

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 3001 TRI-ETCH/GLASS ETCH #1
PRODUCT CODE: 00000000000003001

HMIS CODES: H F R P
3 1 2 J

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

MANUFACTURER'S NAME: Triangle Ink Co., Inc.
ADDRESS : 53-57 Van Dyke Street
Wallington, NJ 07057

EMERGENCY PHONE : 800-429-9300 (CHEMTREC) DATE PRINTED : 09/16/2004
INTRNATIONAL : 703-527-3887
INFORMATION PHONE : 201-935-2777

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

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE		WEIGHT PERCENT
		MM HG	@ TEMP	
OPTIM 9R) GLYCERINE 99.7%, USP - KOSHER GRADE OSHA PEL: 15mg/m3, ACGIH TLV: 10mg/m3	56-81-5	0.99000	68.00000	20
Ammonium Bifluoride; Ammonium Hydrogen Fluoride OSHA PEL: 2.5mg/m3, ACGIH TLV: 2.5mg/m3 LC50: 1276 PPM/1HR (RAT) CORROSIVE LC50: 342 PPM/3HR (MOUSE) CORROSIVE	1341-49-7	0.74000	20.00000	17.41
* Sulfuric Acid (Minimum 60%) OSHA PEL: 1 mg/m3, ACGIH TLV: 1 mg/m3	7664-93-9	0.00100	68.00000	4.35

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING RANGE: 446 TO 590 DEG F SPECIFIC GRAVITY (H2O=1): 1.3
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
MATERIAL V.O.C.: . lb/gl
SOLUBILITY IN WATER: SOLUBLE (Dilutable)
APPEARANCE AND ODOR: PINK PASTE WITH ACIDIC ODOR

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

FLASH POINT: 390 deg F METHOD USED: PMCC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG, OTHER

SPECIAL FIREFIGHTING PROCEDURES

USE SELF CONTAINED BREATHING APPARATUS, AND SUITABLE PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS

THIS IS A WATERBASED PRODUCT AND PRESENTS NO PARTICULAR FIRE AND/OR EXPLOSION HAZARD.

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE

MATERIAL SAFETY DATA SHEET

CONDITIONS TO AVOID

HIGH TEMPERATURES.

INCOMPATIBILITY (MATERIALS TO AVOID)

STRONG OXIDIZERS, ACIDS, BASES, ANHYDRIDES AND AMINES.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

May produce acidic fumes by reaction or burning.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

INHALATION OF VAPOR OR MIST MAY CAUSE HEADACHE AND IRRITATION OF THE NOSE AND THROAT. SEEK MEDICAL ADVICE IN ANY UNUSUAL SYMPTOMS DEVELOP.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

IRRITATION OF EYES AND SKIN, REDNESS AND BURNING

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

THIS PRODUCT IN CONTACT WITH THE SKIN WILL CAUSE SEVERE BURNS AND RASHES.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

IF THIS PRODUCT IS SWALLOWED, DO NOT INDUCE VOMITING, SEEK IMMEDIATE MEDICAL ADVICE AND OR ATTENTION.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Inhalation-Dizziness, breathing difficulty, headaches, and loss of coordination. Eye contact-Severe irritation, tearing, redness, and blurred vision. Skin contact-Can dry and defat skin causing cracks, irritation, and dermatitis. Ingestion-Can cause gastrointestinal irritation, vomiting, nausea, & diarrhea. No chronic health effects.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED:

Yes

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

RESPIRATORY TRACT IRRITATION, DERMATITIS, NAUSEA, VOMITING

EMERGENCY AND FIRST AID PROCEDURES

IF THIS PRODUCT COMES IN CONTACT WITH THE EYES, FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND SEEK IMMEDIATE MEDICAL ATTENTION. IF THIS PRODUCT COMES IN CONTACT WITH THE SKIN, WASH WITH SOAP AND LARGE QUANTITIES OF WATER AND SEEK MEDICAL ATTENTION IF IRRITATION FROM CONTACT PERSISTS. IF THIS PRODUCT IS SWALLOWED DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

EVACUATE IMMEDIATE AREA OF ALL NON-ESSENTIAL PERSONNEL. DIKE AREA WITH ABSORBENT MATERIAL SUCH AS FULLER'S EARTH, CLAY OR VERMICULITE. COLLECT IN POLYETHYLENE LINED CONTAINERS FOR WASTE DISPOSAL. WASH AREAS WITH LIQUID DECONTAMINANT (AMMONIUM HYDROXIDE 10%, DETERGENT 5% IN WATER).

WASTE DISPOSAL METHOD

COLLECT SPILLED LIQUID MIXTURE INTO CONTAINERS FOR RECOVERY OR DISPOSAL. ADD ENOUGH WATER TO COVER. KEEP SPILLS AND CLEANING RUNOFFS OUT OF MUNICIPAL SEWER AND OPEN BODIES OF WATER. CONSULT LOCAL STATE AND FEDERAL HAZARDOUS WASTE

MATERIAL SAFETY DATA SHEET

REGULATION BEFORE DISPOSING INTO APPROVED HAZARDOUS WASTE LANDFILLS. OBEY RELEVANT LAWS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

KEEP FROM FREEZING TO ENSURE PRODUCT STABILITY. IDEAL STORAGE TEMPERATURE IS 50 - 81 F (10 - 27 C), IN AN AREA WITH ADEQUATE VENTILATION.

OTHER PRECAUTIONS

Smoking in area where this material is used should be strictly prohibited. Plastic utensils are preferred tools as material is corrosive to metal implements.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

THE USE OF RESPIRATORY PROTECTION DEPENDS ON VAPOR CONCENTRATION. ABOVE THE TIME WEIGHTED TLV, USE NIOSH APPROVED CARTRIDGE RESPIRATOR OR GAS MASK.

VENTILATION

General mechanical ventilation may be sufficient to keep product concentration within specified time weighted TLV range.

PROTECTIVE GLOVES

THE USE OF IMPERMEABLE GLOVES IS ADVISED TO PREVENT SKIN IRRITATION.

EYE PROTECTION

SAFETY GLASSES WITH SIDE SHIELDS, CHEMICAL GOGGLES AND/OR FACE SHIELDS ARE RECOMMENDED

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

IMPERMEABLE APRONS ARE ADVISED WHEN WORKING WITH THIS PRODUCT. THE AVAILABILITY OF EYE WASHES AND SAFETY SHOWERS IN WORK AREAS IS RECOMMENDED.

WORK/HYGIENIC PRACTICES

EYE WASHES AND SAFETY SHOWERS IN THE WORKPLACE ARE RECOMMENDED.

===== SECTION IX - DISCLAIMER =====

TO THE BEST OF TRIANGLE INK CO., INC.'S KNOWLEDGE, THE INFORMATION CONTAINED HERE IS ACCURATE, OBTAINED FROM SOURCES BY OUR RAW MATERIALS SUPPLIERS. HOWEVER, NO WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. SUCH DATA MUST BE VERIFIED FOR USE BY YOU IN AN INDUSTRIAL ATMOSPHERE ONLY.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 3002 GLASS ETCH REDUCER
PRODUCT CODE: 00000000000003002

HMIS CODES: H F R P
3 1 2 J

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Ammonium Bifluoride; Ammonium Hydrogen Fluoride OSHA PEL: 2.5mg/m3, ACGIH TLV: 2.5mg/m3 LC50: 1276 PPM/1HR (RAT) CORROSIVE LC50: 342 PPM/3HR (MOUSE) CORROSIVE	1341-49-7	0.74000 20.00000	25.58
* Sulfuric Acid (Minimum 60%) OSHA PEL: 1 mg/m3, ACGIH TLV: 1 mg/m3	7664-93-9	0.00100 68.00000	7.42

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 446 TO 590 DEG F SPECIFIC GRAVITY (H2O=1): 1.3
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
MATERIAL V.O.C.: . lb/gl
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APPEARANCE AND ODOR: PINK PASTE WITH ACIDIC ODOR

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FLASH POINT: 390 deg F METHOD USED: PMCC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG, OTHER

SPECIAL FIREFIGHTING PROCEDURES

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HEALTH HAZARDS (ACUTE AND CHRONIC)

Inhalation-Dizziness, breathing difficulty, headaches, and loss of coordination. Eye contact-Severe irritation, tearing, redness, and blurred vision. Skin contact-Can dry and defat skin causing cracks, irritation, and dermatitis. Ingestion-Can cause gastrointestinal irritation, vomiting, nausea, & diarrhea. No chronic health effects.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED:

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