MATERIAL SAFETY DATA SHEET

FOR COATING, RESINS, AND RELATED MATERIALS

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SECTION I PREPARATION INFORMATION AND PRODUCT IDENTIFICATION

** PREPARATION INFORMATION **

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Date of Preparation : 06-26-93
Manufacturer : Sigma Coatings USA B.V.
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** PRODUCT IDENTIFICATION **

Product Identification : 5441-7000A
Trade Name : ACRYLIC EPOXY WHITE BASE
Product Use : MAINTENANCE PAINT
UN Number (or Canadian Product Identification Number) : 1263

HMIS INFORMATION : HEALTH : 2 FLAMMABILITY : 3
REACTIVITY : 1 PERSONAL PROTECTIVE EQUIPMENT : J
4 = SEVERE 3 = SERIOUS 2 = MODERATE 1 = SLIGHT

Splash Goggles, Gloves, Synthetic Apron, & Dust and Vapor Respirator

SECTION II HAZARDOUS INGREDIENTS

REF# INGREDIENT CAS NUMBER

TITANIUM DIOXIDE
02 CAS# 13463-67-7
% BY WT: 15 - 40

EXPOSURE LIMIT:

ACGIH (TLV) TWA	10 MG/CUBIC METER
ACGIH (TLV) STEL	N/A
ACGIH (TLV) CEILING	N/A
OSHA PEL TWA FINAL	5 MG/CUBIC METER
OSHA PEL STEL FINAL	N/A
OSHA PEL CEILING	N/A
LD50	OVER 10,000 MG/KG - SKIN/RABBITS
LC50	NOT AVAILABLE

METHYL ISOAMYL KETONE
03 CAS# 110-12-3
% BY WT: 7.0 - 13 VAPOR PRESSURE: 4.50 MMHG @ 68F LEL: 1.1

EXPOSURE LIMIT:

ACGIH (TLV) TWA	50 PPM - 240 MG/CUBIC METER
ACGIH (TLV) STEL	NOT AVAILABLE
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	50 PPM - 240 MG/CUBIC METER
OSHA PEL STEL FINAL	NOT AVAILABLE

SECTION II HAZARDOUS INGREDIENTS

REF# INGREDIENT CAS NUMBER

OSHA PEL CEILING	NOT AVAILABLE
LD50	5.7 G/KG - ORAL / RAT
LC50	NOT AVAILABLE
VAPOR PRESSURE	4 MM

N-BUTYL ACETATE
07 CAS# 123-86-4
% BY WT: 5.0 - 10 VAPOR PRESSURE: 13.00 MMHG @ 68F LEL: 3.0

EXPOSURE LIMIT:

ACGIH (TLV) TWA	150 PPM - 713 MG/CUBIC METER
ACGIH (TLV) STEL	200 PPM - 950 MG/CUBIC METER
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	150 PPM - 710 MG/CUBIC METER
OSHA PEL STEL FINAL	200 PPM - 950 MG/CUBIC METER
OSHA PEL CEILING	NOT AVAILABLE
LD50	14.0 G/KG - ORAL/RAT
LC50	OVER 1800 PPM - 6 HOURS/RAT
VAPOR PRESSURE	13 MM

YLENE
.3 CAS# 1330-20-7
% BY WT: 9.136 VAPOR PRESSURE: 6.70 MMHG @ 68F LEL: 1.0

EXPOSURE LIMIT:

ACGIH (TLV) TWA	100 PPM - 434 MG/CUBIC METER
ACGIH (TLV) STEL	150 PPM - 651 MG/CUBIC METER
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	100 PPM
OSHA PEL STEL FINAL	150 PPM - 655 MG/CUBIC METER
OSHA PEL CEILING	NOT AVAILABLE
LD50	4300 MG/KG - ORAL/RAT
LC50	TC (LOW) = 200 PPM (HUMAN TOXIC EFFECTS)
VAPOR PRESSURE	6.7 MM

ETHYL BENZENE
14 CAS# 100-41-4
% BY WT: 1.795 VAPOR PRESSURE: 10.00 MMHG @ 68F LEL: 1.0

EXPOSURE LIMIT:

ACGIH (TLV) TWA	100 PPM - 434 MG/CUBIC METER
ACGIH (TLV) STEL	125 PPM - 543 MG/CUBIC METER
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	100 PPM - 434 MG/CUBIC METER
OSHA PEL STEL FINAL	125 PPM - 543 MG/CUBIC METER
OSHA PEL CEILING	NOT AVAILABLE
LD50	3500 MG/KG - ORAL/RAT
LC50	TC (LOW) = 100 PPM/4 HOURS (HUMAN)

SECTION II HAZARDOUS INGREDIENTS

REF#	INGREDIENT	CAS NUMBER
	VAPOR PRESSURE 10 MM	

LT AROMATIC NAPHTHA
15 CAS# 64742-95-6
% BY WT: 1.0 - 5.0 VAPOR PRESSURE: 3.00 MMHG @ 68F LEL: 1.0

EXPOSURE LIMIT:

ACGIH (TLV) TWA	NOT AVAILABLE
ACGIH (TLV) STEL	NOT AVAILABLE
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	100 PPM - 400 MG/CUBIC METER
OSHA PEL STEL FINAL	NOT AVAILABLE
OSHA PEL CEILING	NOT AVAILABLE
LD50	NOT AVAILABLE
LC50	NOT AVAILABLE
VAPOR PRESSURE	3 MM

TRIMETHYLBENZENE
17 CAS# 25551-13-7
% BY WT: 1.0 - 5.0 VAPOR PRESSURE: 3.00 MMHG @ 68F LEL: 1.0

EXPOSURE LIMIT:

ACGIH (TLV) TWA	25 PPM - 125 MG/CUBIC METER
ACGIH (TLV) STEL	NOT AVAILABLE
ACGIH (TLV) CEILING	NOT AVAILABLE
OSHA PEL TWA FINAL	25 PPM - 125 MG/CUBIC METER
OSHA PEL STEL FINAL	NOT AVAILABLE
OSHA PEL CEILING	NOT AVAILABLE
LD50	5,000 MG/KG - ORAL/RAT
LC50	NOT AVAILABLE
VAPOR PRESSURE	NOT AVAILABLE

This product contains no NTP, IARC or OSHA carcinogens or suspected carcinogens required to be reported under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, due to their presence in this product at 0.1 % or more by weight.

This product contains pigments which may become a dust nuisance when removed by abrasive blasting, sanding, or grinding.

SECTION III PHYSICAL DATA

Boiling Range: High= 335.0 F Low= 260.0 F
Vapor Pressure: 13.00 MMHG @68 F
Vapor Density: Heavier Than Air
Evaporation Rate: Faster than Butyl Acetate
Weight per Gallon: 10.81
Specific Gravity: 1.30
% Volatile by Volume: 54.43
% Volatile by Weight: 35.71
VOC: 3.859
Physical State: LIQUID
Appearance: THICK WHITE LIQUID
Odor: PUNGENT KETONE/IRRITATING
dor Threshold: NOT AVAILABLE
H: NOT APPLICABLE
eezing Point: Not Available
ter Solubiltiy: Not Available
Coefficient of Water/Oil Distribution: NOT AVAILABLE
Sensitivity to explosion by impact: NONE
Sensitivity to explosion by static electricity: MODERATE

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flammability Classification: Class 1B DOT: Flammable Liquid
Lowest Flashpoint TCC: 59.0 F
Explosion Level: Lower= 1.0 Upper= 8.2
Auto Ignition Temperature: 425.0
EXTINGUISHING MEDIA

Use CO2, DRY CHEMICAL, FOAM, ALCOHOL FOAM, or WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARD:
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Do not apply to hot surfaces. Never use welding or cutting torch on or near container (even empty) because product (even residue) may ignite explosively.
SPECIAL FIRE FIGHTING PROCEDURES
ater spray may be ineffective. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when posed to extreme heat. If water is used, fog nozzles are preferable.
ased on the presence of components (03,07,13,14, This liquid and vapor is

dangerous fire hazard and moderate explosion hazard when exposed to heat, or flame. Heavier-than-air vapors can flow along surfaces to distant ignition sources and flash back.

SECTION V TOXICOLOGICAL PROPERTIES AND FIRST AID MEASURES

** ACUTE AND CHRONIC TOXICOLOGICAL PROPERTIES **

Based on the presence of components (03,07,13,14, this product may cause irritation to the upper respiratory tract.
This product can be irritating to the eyes.
Based on the presence of components (03) this product is severly irritating to the eyes. Exposure may cause extensive corneal injury.
Based on the presence of components (03) this product may cause skin irritation and drying/defatting or cracking, and dermatitis on repeated or prolonged exposure to the skin.

FIRST AID

EYE CONTACT: Flush with luke warm water for 15 minutes. Seek physician immediately.
SKIN CONTACT: Flush wash with copious amounts of luke warm water. Remove contaminated clothing promptly. Contact a physician immediately.
INHALATION: Remove exposed individial to fresh air. Restore breathing if required. Contact a physician immediately.
INGESTION: Rinse mouth immediately. Give exposed individual 6 to 8 ounces of liquid. (Never give anything by mouth to an unconscious person.) Do NOT induce vomiting unless advised by a physician. Contact a physician immediately.
EFFECTS OF EXCESSIVE EXPOSURE
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstartes vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use.
ROUTE OF ENTRY : SKIN CONTACT, INHALATION.
Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.
NOTICE - Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI REACTIVITY DATA

STABILITY
This product is stable.
INCOMPATIBILITY (Materials to Avoid)
Based on the presence of components (03,07,13,14, this product is incompatible with strong oxidizing agents; contact with these materials may cause fire or explosion.

SECTION VII PREVENTIVE MEASURES (SAFE HANDLING & USE / SPILL & LEAK PROCEDURES)

HYGIENIC PRACTICES

Wash hands thoroughly before eating and using washroom.
PROTECTIVE EYEWEAR

Avoid contact with eyes. Wear goggles if there is a likelihood of contact with eyes.
Eyewash stations and safety showers should be readily available in use and handling areas.
Use safety eyewear with perforated sideshields.
RESPIRATORY PROTECTION

For outdoor or open areas use (NIOSH/MSHA approved) mechanical filter respirator to remove solid airborne particles of overspray during spray application. In restricted ventilation areas use (NIOSH/MSHA approved) chemical-mechanical filters designed to remove a combination of particulate and gas and vapor. In confined areas use (NIOSH/MSHA approved) air line type respirators or hoods. Respiratory protection may also be necessary in any later manufacturing operations in which the product may become airborne in the form of vapor or dust.
VENTILATION
Use ventilation as required to control vapor concentrations. Avoid prolonged or repeated breathing of vapors. If exposure exceeds TLV, use a NIOSH-approved respirator to prevent overexposure.
PROTECTIVE GLOVES
Required for prolonged or repeated contact. Wear resistant gloves such as natural rubber, neoprene, buna N or nitrile. An apron should be worn to avoid skin contact.
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Stay upwind and away from spill unless wearing appropriate protective equipment. Stop and/or contain discharge if it may be done safely. Keep all sources of ignition away. Ventilate area of spill. Use non-sparking tools for cleanup. Cover with inert material to reduce fumes. Keep out of drains, sewers, or waterways. Contact fire authorities. Notify local health and pollution control agencies. Call spill response teams if large spill.

SECTION VIII SPECIAL PRECAUTIONS

Personnel should avoid inhalation of vapors. Personal contact with the product should be avoided. Should contact be made, remove saturated clothing and flush affected skin areas with water. Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in this sheet must be observed.

NOTICE - Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION IX OTHER REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65 INFORMATION

California Proposition 65 requires manufacturers to warn users of the presence of any chemicals which may cause a "significant risk" due to exposure. Based on the ingredients contained in this product and the possibility of the presence of minute amounts of contaminants present in any type of paint product, Sigma Coatings gives the following warnings:

WARNING : This product contains a chemical known to the State of California to cause cancer.

WARNING : This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

CERCLA REPORTING REQUIREMENTS

Based on the presence of components (07,13,14) you may be required under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) to notify the National Response Center of releases of quantities of these chemicals equal to or greater than the Reportable Quantities (RQ's) listed in 40 CFR 302.4. Refer to 40 CFR 302.4 for details on reporting requirements.

SECTION X Section 313 Toxic Chemicals

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

Chemical	CAS Number	Weight %
XYLENE	1330-20-7	9.136
ETHYL BENZENE	100-41-4	1.795

WHILE THE INFORMATION HERE IS BELIEVED TO BE RELIABLE, NO GUARANTEE IS MADE AS TO ITS ACCURACY OR COMPLETENESS. THE CONDITIONS OF USE, HANDLING, STORAGE, DISPOSAL AND THE SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL. CONSEQUENTLY, ALL RISK INVOLVING THE USE OF THE PRODUCT ARE ASSUMED BY THE USER. WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.