

MATERIAL SAFETY DATA SHEET

REVISION DATE: 11-01-2005

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION

Advanced Protective Technologies LLC
 1101 Cumberland Xing #180
 Valparaiso, IN 46383
 Phone: 219 263-0073

PRODUCT INFORMATION

TRADE NAME: KBS NuMetal
 PRODUCT NUMBER: NuMetal Part A
 PRODUCT DESCRIPTION: Epoxy resin

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	OSHA PEL
Epoxy resin	25068-38-6	5 - 10	Not established

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Eye irritant.
 Can cause skin irritation. May cause allergic skin reaction.
 Harmful if swallowed.

HMIS RATING: HEALTH -- 1 FLAMMABILITY -- 1 REACTIVITY -- 0

See SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY

EYE: Can cause irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excessive blinking and tear production, with marked redness and swelling of the conjunctiva.

SKIN: Can cause skin irritation. May cause sensitization.

INHALATION: Can cause minor respiratory irritation. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

INGESTION: Ingestion is not an anticipated route of exposure. Harmful if swallowed. Irritating to mouth, throat, and stomach.

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: Skin and eye conditions

SECTION 4: FIRST AID MEASURES

IF IN EYES: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get medical attention if irritation persists.

IF ON SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

IF VAPORS INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 243C; 469F
 AUTOIGNITION TEMPERATURE: Not established
 LOWER EXPLOSIVE LIMIT (% in air): Not established

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UPPER EXPLOSIVE LIMIT (% in air): Not established
 EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.
 UNUSUAL FIRE AND EXPLOSION HAZARDS: Material will burn in a fire.
 SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
 HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, Carbon monoxide, Silicon dioxide

SECTION 6: HANDLING AND STORAGE

Storage: Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear safety glasses with side shields when handling this product.
 SKIN PROTECTION: Avoid skin contact by wearing rubber gloves.
 GLOVES: Polyethylene for prolonged use.
 RESPIRATORY PROTECTION: None required for normal use. Use dust mask if grinding or sanding.
 VENTILATION: None required for normal use or use local exhaust ventilation.

EXPOSURE LIMITS:

Chemical Name	ACGIH EXPOSURE LIMITS	AIHA WEEL
Epoxy resin	Not established	Not established

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Semi-solid
 COLOR: Black
 ODOR: Mild Neutral
 ODOR THRESHOLD: Not established
 WEIGHT PER GALLON (lbs.): 15.5
 SPECIFIC GRAVITY: 1.86
 pH: Not established
 BOILING POINT (deg. C): Not established
 FREEZING/MELTING POINT (deg. C): Not established
 VAPOR PRESSURE (mm Hg): Not established
 VAPOR DENSITY: Not established
 EVAPORATION RATE: Not established
 OCTANOL/WATER COEFFICIENT: Not established

SECTION 9: STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
 CHEMICAL INCOMPATIBILITY: Not established
 HAZARDOUS POLYMERIZATION: Will not occur.
 HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, Silicon dioxide

SECTION 10: TOXICOLOGICAL INFORMATION

CHEMICAL NAME	LD50/LC50
Epoxy resin	Oral LD50 Rat = 11.4 g/kg Dermal LD50 Rabbit > 20 ml/kg

TOXICOLOGY SUMMARY: No additional health information available.

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SECTION 11: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available

SECTION 12: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261.

SECTION 13: TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

DOT: NOT REGULATED

SECTION 14: REGULATORY INFORMATION

INVENTORY STATUS

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

FEDERAL REPORTING

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

D2B

Prepared by: Advanced Protective Technologies LLC

Phone: 219 476-7170

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Advanced Protective Technologies LLC from its suppliers, and because Advanced Protective Technologies LLC has no control over the conditions of handling and use, Advanced Protective Technologies LLC makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Advanced Protective Technologies LLC assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Advanced Protective Technologies LLC products to comply with all applicable federal, state and local laws and regulations.

MATERIAL SAFETY DATA SHEET

REVISION DATE: 11-01-2005

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION

Advanced Protective Technologies LLC
 2502 Beech Street Unit 100
 Valparaiso, IN 46383
 Phone: 219 476-7170

PRODUCT INFORMATION

TRADE NAME: KBS NuMetal
 PRODUCT NUMBER: NuMetal Part B
 PRODUCT DESCRIPTION: Epoxy putty hardener

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	OSHA PEL
Tetraethylene pentamine	68513-05-3	10 - 30	Not established

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Eye irritant.
 Can cause skin irritation. May cause allergic skin reaction.
 Harmful if swallowed.

HMS RATING: HEALTH -- 1 FLAMMABILITY -- 1 REACTIVITY -- 0
 See SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY

EYE: Can cause irritation. Eye contact may result in cornea injury. Symptoms may include discomfort or pain excessive blinking and ear production, with marked redness and swelling of the conjunctiva.

SKIN: Can cause skin irritation. May cause sensitization.

INHALATION: Can cause minor respiratory irritation. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

INGESTION: Ingestion is not an anticipated route of exposure. Harmful if swallowed. Irritating to mouth, throat, and stomach.

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: Skin and eye conditions

SECTION 4: FIRST AID MEASURES

IF IN EYES: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get medical attention if irritation persists.

IF ON SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

IF VAPORS INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Drink one glass of water followed by milk if available. Seek medical attention immediately. Do not give anything by mouth to an unconscious person.

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SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	204C; 399F
AUTOIGNITION TEMPERATURE:	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
UPPER EXPLOSIVE LIMIT (% in air):	Not established
EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Material will burn in a fire.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide, Nitrogen containing gases, Silicon dioxide

SECTION 6: HANDLING AND STORAGE

Storage: Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION:	Wear safety glasses with side shields when handling this product.
SKIN PROTECTION:	Avoid skin contact by wearing rubber gloves.
GLOVES:	Polyethylene for prolonged use.
RESPIRATORY PROTECTION:	None required for normal use. Use dust mask if grinding or sanding.
VENTILATION:	None required for normal use or use local exhaust ventilation.

EXPOSURE LIMITS:

Chemical Name	ACGIH EXPOSURE LIMITS	AIHA WEEL
Tetraethylene pentamine	Not established	Not established

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Semi-solid
COLOR:	Tan
ODOR:	Mild
ODOR THRESHOLD:	Not established
WEIGHT PER GALLON (lbs.):	15.5
SPECIFIC GRAVITY:	1.95
pH:	Not established
BOILING POINT (deg. C):	Not established
FREEZING/MELTING POINT (deg. C):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
EVAPORATION RATE:	Not established
OCTANOL/WATER COEFFICIENT:	Not established

SECTION 9: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide, Nitrogen containing gases, Silicon dioxide

SECTION 10: TOXICOLOGICAL INFORMATION

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CHEMICAL NAME	LD50/LC50
Tetraethylene pentamine	Not established

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 11: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. .

SECTION 14: TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

DOT: NOT REGULATED

SECTION 15: REGULATORY INFORMATION

INVENTORY STATUS

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

FEDERAL REPORTING

EPA SARA Title III Section 313

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Chemical Name	CAS#	%

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

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Prepared by: Advanced Protective Technologies LLC

Phone: 219 476-7170

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