

MATERIAL SAFETY DATA SHEET

PRODUCT: HBE-95-SG Cure
REVISION DATE: August 27th 2009

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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER: CANUSA-CPS, A DIVISION OF SHAWCOR LTD.
ADDRESS: 25 BETHRIDGE ROAD
CITY, PROVINCE/STATE: TORONTO, ONTARIO
POSTAL CODE: M9W 1M7
EMERGENCY PHONE NUMBER: (613) 996-6666 (CANUTEC)
INFORMATION NUMBER: (416) 743-7111

PRODUCT IDENTITY **HBE-95-SG Cure**
(AS USED ON LABEL AND LIST):
PRODUCT USE: Curing Agent for HBE-95-SG Base Coating for Pipelines
PRODUCT I.D. NUMBER (PIN): N/A

SECTION 2 - HAZARDS IDENTIFICATION

ADVERSE HEALTH EFFECTS:

ADVERSE EYE, SKIN AND RESPIRATORY EFFECTS. SENSITIZATION MAY OCCUR WITH PROLONGED SKIN CONTACT.

ENVIRONMENTAL EFFECTS:

NOT AVAILABLE

PHYSICAL AND CHEMICAL HAZARDS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO₂), CARBOXYLIC ACIDS, ALDEHYDES.

SPECIFIC HAZARDS:

NOT AVAILABLE

CARCINOGENICITY INFORMATION:

NOT AVAILABLE

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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS #</u>	<u>%</u>	<u>HAZARD SYMBOLS</u>	<u>RISK PHRASES</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE)BIS-	80-05-7	15-40	X _i	R36/37/38, R43
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	15-40	X _n , C	R21/22, R34, R43, R52/53
NONYL PHENOL	25154-52-3	15-40	X _n , C, N	R22, R34, R50/53
BENZYL ALCOHOL	100-51-6	5-10	X _n	R20/22
BENZYLDIMETHYLAMINE	103-83-3	1-5	X _n , C	R10, R20/21/22, R34, R52/53
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL)PROPYL-	1760-24-3	1-5	NONE KNOWN	NONE KNOWN
TETRAETHYLENE POLYAMINES	112-57-2	0.1-1	X _n , C, N	R21/22, R34, R43, R51/53

SECTION 4 - FIRST-AID MEASURES

EYE CONTACT:

FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.

SKIN CONTACT:

WASH WITH SOAP AND WATER FOR 15 MINUTES; REMOVE CONTAMINATED CLOTHING. SEEK MEDICAL ATTENTION.

INHALATION:

REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, A TRAINED PERSON SHOULD PERFORM ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION.

INGESTION:

SEEK IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING.

NOTE TO PHYSICIAN:

NOT AVAILABLE

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SECTION 5 - FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE

FIRE-FIGHTING HAZARDS:

NOT AVAILABLE

FIRE-FIGHTING PERSONAL PROTECTIVE EQUIPMENT:

USE SELF CONTAINED BREATHING APPARATUS DURING FIREFIGHTING

FIRE-FIGHTING PROCEDURES:

NOT AVAILABLE

THERMAL DECOMPOSITION BY-PRODUCTS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO₂), CARBOXYLIC ACIDS, ALDEHYDES.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

REMOVE ALL SOURCES OF IGNITION. WEAR APPROPRIATE SAFETY EQUIPMENT.

ENVIRONMENTAL PRECAUTIONS:

PREVENT RUN-OFF FROM REACHING STORM OR SEWER DRAINS.

METHODS FOR CLEANING UP:

SOAK UP SPILLS WITH INERT ABSORBENT MATERIALS AND PLACE IN CLOSED CONTAINERS. DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

SECTION 7 - HANDLING AND STORAGE

HANDLING REQUIREMENTS:

MAINTAIN GOOD PERSONAL HYGIENE. ALL EQUIPMENT MUST BE GROUNDED.

STORAGE REQUIREMENTS:

COOL DRY ENVIRONMENT AWAY FROM INCOMPATIBLE MATERIALS AND ALL SOURCES OF IGNITION.

INCOMPATIBLE MATERIALS:

STRONG ACIDS, OXIDIZERS (PERCHLORATES, NITRATES)

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VENTILATION:

ADEQUATE GENERAL VENTILATION IS RECOMMENDED

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

ADEQUATE GENERAL VENTILATION IS RECOMMENDED

PERSONAL PROTECTIVE EQUIPMENT (PPE):

GLOVES/TYPE: CHEMICAL RESISTANT GLOVES WHEN HANDLING MATERIAL.
RESPIRATORY/TYPE: WEAR A NIOSH APPROVED RESPIRATOR DURING APPLICATION AND HANDLING WHERE VAPOUR/MIST IS ENCOUNTERED IN THE BREATHING ZONE. AFTER APPLICATION AND DRYING, WEAR A DUST RESPIRATOR FOR ANY SANDING, GRINDING TYPE ACTIVITIES.
EYE/TYPE: SPLASH PROOF CHEMICAL SAFETY GOGGLES
FOOTWEAR: IMPERVIOUS BOOTS
CLOTHING: CHEMICAL RESISTANT APRON, COVER EXPOSED SKIN.

INGREDIENT EXPOSURE DATA:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>LD₅₀ (species and route)</u>	<u>LC₅₀ (species and route)</u>	<u>OSHA (PEL) TWA</u>	<u>ACGIH (TLV) TWA</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE) BIS-	80-05-7	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	Rat, Oral: 2140 mg/kg Rat, Dermal: 880 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
NONYL PHENOL	25154-52-3	Mouse, Oral: 1231 mg/kg Rabbit, Dermal: 2140 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
BENZYL ALCOHOL	100-51-6	Rat, Oral: 1230 mg/kg Rabbit, Dermal: 2000 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

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BENZYLDIMETHYL AMINE	103-83-3	Rat, Oral: 265 mg/kg Rabbit, Dermal: 1660 mg/kg	Mouse, 2H: 1800 mg/m ³	NOT AVAILABLE	NOT AVAILABLE
1,2-ETHANEDIAMINE, N-(3- (TRIMETHOXSILYL) PROPYL-	1760-24-3	Rat, Oral: 7460 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
TETRAETHYLENE POLYAMINES	112-57-2	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA:

PHYSICAL STATE:	LIQUID
FORM:	MODERATELY VISCOUS
COLOUR:	AMBER
ODOUR:	AMMONIACAL
ODOUR THRESHOLD (PPM):	NOT AVAILABLE
BOILING POINT:	NOT AVAILABLE
FREEZING POINT:	NOT AVAILABLE
MELTING POINT:	NOT AVAILABLE
EVAPORATION RATE:	NOT AVAILABLE
VAPOUR PRESSURE (mmHg):	NOT AVAILABLE
VAPOUR DENSITY (AIR = 1):	NOT AVAILABLE
pH:	NOT AVAILABLE
SPECIFIC GRAVITY (WATER = 1):	1.048
COEFFICIENT OF WATER/OIL DISTRIBUTION:	NOT AVAILABLE
SOLUBILITY IN WATER:	NOT AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

ELEVATED TEMPERATURES

MATERIALS TO AVOID:

STRONG ACIDS, OXIDIZERS (PERCHLORATES, NITRATES)

STABILITY AND REACTIVITY DATA:

STABILITY:	UNSTABLE: _____	STABLE: _____
HAZARDOUS POLYMERIZATION:	WILL OCCUR: _____	WILL NOT OCCUR: <u> X </u>

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FLAMMABILITY DATA:

DECOMPOSITION TEMPERATURE: NOT AVAILABLE
FLASHPOINT: NOT AVAILABLE
AUTOIGNITION TEMPERATURE: NOT AVAILABLE

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO₂), CARBOXYLIC ACIDS, ALDEHYDES.

EXPLOSION DATA:

STATIC DISCHARGE: NOT AVAILABLE
MECHANICAL IMPACT: NOT AVAILABLE
LOWER EXPLOSIVE LIMIT, LEL (%): NOT AVAILABLE
UPPER EXPLOSIVE LIMIT, UEL (%): NOT AVAILABLE

SECTION 11 - TOXICOLOGY INFORMATION

EFFECTS FROM EYE CONTACT:

SEVERE IRRITANT. BURNS OF EYES MAY SEVERELY DAMAGE CONTACTED TISSUE AND PRODUCE SCARRING.

EFFECTS FROM SKIN CONTACT:

CAUSES CHEMICAL BURNS. SEVERE IRRITANT. MAY CAUSE ALLERGIC SKIN REACTION

EFFECTS FROM INHALATION:

SEVERE RESPIRATORY TRACT IRRITANT, MAY SEVERELY DAMAGE CONTACTED TISSUE AND PRODUCE SCARRING

EFFECTS FROM INGESTION:

HARMFUL IF SWALLOWED. MAY CAUSE DEATH UNLESS TREATED PROMPTLY.

TOXICOLOGICAL DATA:

EFFECTS OF ACUTE EXPOSURE: SEE ABOVE
EFFECTS OF CHRONIC EXPOSURE: ADVERSE EYE, SKIN AND RESPIRATORY EFFECTS. SENSITIZATION MAY OCCUR WITH PROLONGED SKIN CONTACT.

IRRITANCY OF MATERIAL: SEE ACUTE EFFECTS
SENSITIZING CAPABILITY: YES
CARCINOGENICITY OF MATERIAL: NOT AVAILABLE
REPRODUCTIVE TOXICITY: NOT AVAILABLE
TERATOGENICITY: NOT AVAILABLE
MUTAGENICITY: NOT AVAILABLE
SYNERGISTIC MATERIALS: NOT AVAILABLE

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SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

NOT AVAILABLE

OTHER EFFECTS AND INFORMATION:

NOT AVAILABLE

SECTION 13 - DISPOSAL CONSIDERATIONS

PRODUCT AS SOLD:

DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

PRODUCT PACKAGING:

DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

SPECIAL INSTRUCTIONS:

NOT AVAILABLE

SECTION 14 - TRANSPORT INFORMATION

SHIPPING INFORMATION:

SHIPPING NAME:	HBE-95-SG Cure - AMINES, LIQUID, CORROSIVE, N.O.S.
PIN/UN NUMBER:	UN 2735
PACKING GROUP:	III
TDG REGULATED:	AMINES, LIQUID, CORROSIVE, N.O.S.
DOT REGULATED:	AMINES, LIQUID, CORROSIVE, N.O.S.
IATA REGULATED:	AMINES, LIQUID, CORROSIVE, N.O.S.

SPECIAL SHIPPING INSTRUCTIONS:

NOT AVAILABLE

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SECTION 15 - REGULATORY INFORMATION

NOTE:

THE REGULATORY INFORMATION PROVIDED IS NOT INTENDED TO BE COMPREHENSIVE. OTHER LOCAL, STATE, PROVINCIAL, FEDERAL, INTERNATIONAL OR COUNTRY SPECIFIC REGULATIONS MAY APPLY TO THIS MATERIAL. THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

GENERAL MATERIAL INFORMATION:

WHMIS CLASSIFICATION:



EUROPEAN CLASSIFICATION



RISK PHRASES

R10, R20/21/22, R34, R36/37/38, R43, R50/53

SAFETY PHRASES

S1/2, S24, S26, S36/37/39, S45, S46, S60, S61

COMPONENT ANALYSIS – LIST STATUS:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>CANADA WHMIS IDL</u>	<u>US CERCLA PRIORITY LIST</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE)BIS-	80-05-7	YES	NO
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	YES	NO
NONYL PHENOL	25154-52-3	YES	NO
BENZYL ALCOHOL	100-51-6	YES	NO
BENZYLDIMETHYL AMINE	103-83-3	YES	NO
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXSILYL) PROPYL-	1760-24-3	NO	NO

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TETRAETHYLENE 112-57-2 YES NO
 POLYAMINES

COMPONENT ANALYSIS – INVENTORY STATUS:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>CANADA- DSL</u>	<u>US- TSCA</u>	<u>EU- EINECS</u>	<u>AUSTRALIA -AICS</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE) BIS-	80-05-7	YES	YES	YES, 201-245-8	YES
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	YES	YES	YES, 205-411-0	YES
NONYL PHENOL	25154-52-3	YES	YES	YES, 246-672-0	YES
BENZYL ALCOHOL	100-51-6	YES	YES	YES, 202-859-9	YES
BENZYLDIMETHYL AMINE	103-83-3	YES	YES	YES, 203-149-1	YES
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL) PROPYL-	1760-24-3	YES	YES	YES, 217-164-6	YES
TETRAETHYLENE POLYAMINES	112-57-2	YES	YES	YES, 203-986-2	YES

SECTION 16 - OTHER INFORMATION

PREPARED BY: SHAWCOR LTD.
TELEPHONE NUMBER: (416) 743-7111
DATE PREPARED: September 21st 2006

ADDITIONAL INFORMATION:

EUROPEAN/INTERNATIONAL HAZARD SYMBOLS AND RISK AND SAFETY PHRASES

HAZARD SYMBOLS:

SYMBOL: D1B	DEFINITION POISONOUS AND INFECTIOUS MATERIAL (MATERIALS CAUSING IMMEDIATE AND SERIOUS TOXIC EFFECTS)
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D2A/D2B	POISONOUS AND INFECTIOUS MATERIAL (MATERIALS CAUSING OTHER TOXIC EFFECTS)
E	CORROSIVE MATERIAL
Xi	IRRITANT
Xn	HARMFUL
C	CORROSIVE
N	HARMFUL FOR THE NATRUAL ENVIRONMENT

RISK PHRASES:

SYMBOL:	DEFINITION
R10	FLAMMABLE
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED
R34	CAUSES BURNS
R36/37/38	IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN
R43	MAY CAUSE SENSITIZATION BY SKIN CONTACT
R50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS TO AQUATIC ENVIRONEMNT

SAFETY PHRASES:

SYMBOL:	DEFINITION
S1/2	KEEP LOCKED UP AND OUT OF REACH OF CHILDREN
S24	AVOID CONTACT WITH SKIN
S26	IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE
S36/37/39	WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION
S45	IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE)
S46	IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL
S60	THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF AS HAZARDOUS WASTE
S61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET

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