

## MATERIAL SAFETY DATA SHEET

PRODUCT: HBE-95-SG CURE  
REVISION DATE: JULY 22, 2013

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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):** NOT AVAILABLE

### SECTION 2 - HAZARDS IDENTIFICATION

**ADVERSE HEALTH EFFECTS:**

MAY CAUSE EYE, SKIN AND RESPIRATORY DISCOMFORT; SENSITIZATION MAY OCCUR WITH PROLONGED AND REPEATED SKIN CONTACT

**ENVIRONMENTAL EFFECTS:**

NOT AVAILABLE

**PHYSICAL AND CHEMICAL HAZARDS:**

HARMFUL VAPOURS MAY BE RELEASED DURING OVERHEATING

**SPECIFIC HAZARDS:**

NOT AVAILABLE

**CARCINOGENICITY INFORMATION:**

NONE KNOWN

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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	Xi	R36, R37, R38, R43
1-(2-,AMINOETHYL PIPERAZINE) (AEP)	140-31-8	15-40	C, Xn	R21, R22, R34, R43, R52, R53
NONYL PHENOL	25154-52-3	15-40	C, N	R22, R34, R50, R53, R62, R63
BENZYL ALCOHOL	100-51-6	5-10	Xn	R20, R22
BENZYLDIMETHYLAMINE	103-83-3	1-5	C, Xn	R10, R20, R21, R22, R34, R52, R53
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL)PROPYL-	1760-24-3	1-5	Xi, C	R34, R38, R41, R43
TETRAETHYLENE POLYAMINES	112-57-2	0.1-1	C, N	R21, R22, R34, R43, R51, R53

## SECTION 4 - FIRST-AID MEASURES

### EYE CONTACT:

FLUSH WITH WATER FOR 15 MINUTES; SEEK MEDICAL ATTENTION

### SKIN CONTACT:

WASH WITH SOAP AND WATER FOR 15 MINUTES; SEEK MEDICAL ATTENTION

### INHALATION:

REMOVE TO FRESH AIR; IF SYMPTOMS DEVELOP SEEK MEDICAL ATTENTION

### INGESTION:

DO NOT INDUCE VOMITING; SEEK MEDICAL ATTENTION

### 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:

HARMFUL VAPOURS

### FIRE-FIGHTING PERSONAL PROTECTIVE EQUIPMENT:

USE A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING

### FIRE-FIGHTING PROCEDURES:

FIGHT FIRE FROM A PROTECTED LOCATION

### THERMAL DECOMPOSITION BY-PRODUCTS:

OXIDES OF NITROGEN AND CARBON; CARBOXYLIC ACIDS; ALDEHYDES

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS:

REMOVE ALL SOURCES OF IGNITION; WEAR PERSONAL PROTECTIVE EQUIPMENT

### ENVIRONMENTAL PRECAUTIONS:

PREVENT RUN-OFF FROM REACHING STORM OR SEWER DRAINS

### METHODS FOR CLEANING UP:

SOAK UP SPILLS WITH INERT ABSORBENT MATERIAL AND PLACE IN A CLOSED CONTAINER

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## SECTION 7 - HANDLING AND STORAGE

### HANDLING REQUIREMENTS:

ALL EQUIPMENT MUST BE GROUNDED

### STORAGE REQUIREMENTS:

COOL, DRY ENVIRONMENT

### INCOMPATIBLE MATERIALS:

STRONG ACIDS, OXIDIZERS

### VENTILATION:

GENERAL VENTILATION; LOCAL VENTILATION WHEN OVERHEATING IS EXPECTED

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

GENERAL VENTILATION; LOCAL VENTILATION WHEN OVERHEATING IS EXPECTED

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

GLOVES/TYPE:	CHEMICAL RESISTANT GLOVES WHEN HANDLING MATERIAL
RESPIRATORY/TYPE:	NIOSH APPROVED RESPIRATOR DURING APPLICATION AND HANDLING WHERE VAPOUR OR MIST IS ENCOUNTERED IN THE BREATHING ZONE
EYE/TYPE:	SPLASH PROOF CHEMICAL SAFETY GOGGLES
FOOTWEAR:	IMPERVIOUS BOOTS
CLOTHING:	CHEMICAL RESISTANT APRON, COVER EXPOSED SKIN

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## INGREDIENT EXPOSURE DATA:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>LD<sub>50</sub> (species and route)</u>	<u>LC<sub>50</sub> (species and route)</u>	<u>OSHA (PEL) TWA</u>	<u>ACGIH (TLV) TWA</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE) BIS-	80-05-7	1200mg/kg (RAT, ORAL)	500mg/24H (RABBIT, SKIN)	-	-
1-(2-,AMINOETHYL PIPERAZINE) (AEP)	140-31-8	2140mg/kg (RAT, ORAL)	-	-	-
NONYLPHENOL	25154-52-3	1620mg/kg (MOUSE, ORAL)	-	-	-
BENZYL ALCOHOL	100-51-6	1040mg/kg (RAT, ORAL)	100mg/24H MODERATE (RABBIT, SKIN)	-	-
BENZYLDIMETHYL AMINE	103-83-3	650mg/kg (RAT, ORAL)	-	-	-
1,2-ETHANEDIAMINE, N-(3-TRIMETHOXYSILYL) PROPYL	1760-24-3	7669mg/kg (RAT, ORAL)	-	-	-
TETRAETHYLENE POLYAMINES	112-57-2	3990mg/kg (RAT, ORAL)	-	-	0.2mg/m <sup>3</sup>

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL DATA:

PHYSICAL STATE:	LIQUID
FORM:	MODERATELY VISCOUS
COLOUR:	GREEN
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 AND OXIDIZERS

### STABILITY AND REACTIVITY DATA:

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

### FLAMMABILITY DATA:

DECOMPOSITION TEMPERATURE:	>150°C (302 F)
FLASHPOINT:	NOT AVAILABLE
AUTOIGNITION TEMPERATURE:	NOT AVAILABLE

### HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:

### EXPLOSION DATA:

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

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## SECTION 11 - TOXICOLOGY INFORMATION

### EFFECTS FROM EYE CONTACT:

MAY CAUSE IRRITATION; HOT MATERIAL MAY CAUSE BURNS

### EFFECTS FROM SKIN CONTACT:

MAY CAUSE IRRITATION; HOT MATERIAL MAY CAUSE BURNS

### EFFECTS FROM INHALATION:

MAY CAUSE IRRITATION

### EFFECTS FROM INGESTION:

HARMFUL IF SWALLOWED

### TOXICOLOGICAL DATA:

EFFECTS OF ACUTE EXPOSURE:	SEE ABOVE
EFFECTS OF CHRONIC EXPOSURE:	MAY CAUSE ADVERSE EYE, SKIN AND RESPIRATORY EFFECTS; SENSITIZATION MAY OCCUR WITH PROLONGED AND REPEATED SKIN CONTACT
IRRITANCY OF MATERIAL:	SEVERE
SENSITIZING CAPABILITY:	MAY OCCUR WITH CHRONIC EXPOSURE
CARCINOGENICITY OF MATERIAL:	NONE KNOWN
REPRODUCTIVE TOXICITY:	NONE KNOWN
TERATOGENICITY:	NONE KNOWN
MUTAGENICITY:	NONE KNOWN
SYNERGISTIC MATERIALS:	NONE KNOWN

## SECTION 12 - ECOLOGICAL INFORMATION

### ECOTOXICITY DATA:

NOT AVAILABLE

### OTHER EFFECTS AND INFORMATION:

NOT AVAILABLE

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## SECTION 13 - DISPOSAL CONSIDERATIONS

### PRODUCT AS SOLD:

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

### PRODUCT PACKAGING:

DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, STATE, 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:	PG III; CLASS 8
TDG REGULATED:	YES
DOT REGULATED:	YES
IATA REGULATED:	YES
IMDG REGULATED:	YES

### SPECIAL SHIPPING INSTRUCTIONS:

NOT AVAILABLE

## 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.



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**GENERAL MATERIAL INFORMATION:**

WHMIS CLASSIFICATION:



EUROPEAN CLASSIFICATION:



RISK PHRASES:

R10, R20, R21, R22, R34, R36, R37, R38, R41, R43, R50, R51, R52, R53, R62, R63

SAFETY PHRASES:

S24, S25, S26, S36, S37, S39, 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	D2B	YES
1-(2-AMINOETHYL PIPERAZINE) (AEP)	140-31-8	B3, D1B, D2B, E	NO
NONYLPHENOL	25154-52-3	D2B, E	NO
BENZYL ALCOHOL	100-51-6	D2B	NO
BENZYLDIMETHYLAMINE	103-83-3	B3, D1B, E	NO
1,2-ETHANEDIAMINE,N-(3-TRIMETHOXYSILYL)PROPYL-	1760-24-3	B3, D2B, E	NO
TETRAETHYLENEPENTAMINE	112-57-2	D1B, D2B, E	NO

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## 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	201-245-8	YES
1-(2-,AMINOETHYL PIPERAZINE) (AEP)	140-31-8	YES	YES	205-411-0	YES
NONYLPHENOL	25154-52-3	YES	YES	246-672-0	YES
BENZYL ALCOHOL	100-51-6	YES	YES	202-859-9	YES
BENZYL DIMETHYL AMINE	103-83-3	YES	YES	203-149-1	YES
1,2-ETHANEDIAMINE,N-(3-TRIMETHOXY-SILYL) PROPYL-	1760-24-3	YES	YES	217-164-6	YES
TETRAETHYLENEPENT AMINE	112-57-2	YES	YES	203-986-2	YES

## SECTION 16 - OTHER INFORMATION

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

## ADDITIONAL INFORMATION:

### WHMIS CLASSIFICATION:

B3 FLAMMABLE AND COMBUSTIBLE MATERIAL (COMBUSTIBLE LIQUIDS)  
D1B POISONOUS AND INFECTIOUS MATERIAL (MATERIALS CAUSING IMMEDIATE AND SERIOUS TOXIC EFFECTS) – TOXIC MATERIAL  
D2B POISONOUS AND INFECTIOUS MATERIAL (MATERIALS CAUSING OTHER TOXIC EFFECTS) – TOXIC MATERIAL  
E CORROSIVE MATERIAL

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## HAZARD SYMBOLS:

C CORROSIVE  
N DANGER TO THE ENVIRONMENT  
Xi IRRITANT  
Xn HARMFUL

## RISK PHRASES:

R10 FLAMMABLE  
R20 HARMFUL BY INHALATION  
R21 HARMFUL IN CONTACT WITH SKIN  
R22 HARMFUL IF SWALLOWED  
R34 CAUSES BURNS  
R36 IRRITATING TO EYES  
R37 IRRITATING TO RESPIRATORY SYSTEM  
R38 IRRITATING TO SKIN  
R41 RISK OF SERIOUS DAMAGE TO EYES  
R43 MAY CAUSE SENSITISATION BY SKIN CONTACT  
R50 VERY TOXIC TO AQUATIC ORGANISMS  
R51 TOXIC TO AQUATIC ORGANISMS  
R52 HARMFUL TO AQUATIC ORGANISMS  
R53 MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT  
R62 POSSIBLE RISK OF IMPAIRED FERTILITY  
R63 POSSIBLE RISK OF HARM TO THE UNBORN CHILD

## SAFETY PHRASES:

S24 AVOID CONTACT WITH SKIN  
S25 AVOID CONTACT WITH EYES  
S26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE  
S36 WEAR SUITABLE PROTECTIVE CLOTHING  
S37 WEAR SUITABLE GLOVES  
S39 WEAR 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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