



TECNOLOGÍA TOTAL

# tecnosleeve-epoxy part B

COATING SYSTEM

**MATERIAL SAFETY DATASHEET - MSDS**

## 1. PRODUCT IDENTIFICATION

**PRODUCT NAME:** tecnosleeve-epoxy part B

**DESCRIPTION:** tecnosleeve-epoxy is a fast drying, 100 % solids by volume coating with high impermeability and temperature resistance, which provides corrosion protection in the **tecnosleeve** coating system.

**RECOMMENDED USE:** Protection against corrosion in pipelines.

**INFORMATION CONTACT:** TECNOLOGIA TOTAL S.A.C.  
Av. Mariscal La Mar 638, Miraflores – Lima  
+51 1 7151545

## 2. HAZARDS IDENTIFICATION

**ADVERSE EFFECTS ON HEALTH:** Adverse effects on eyes, skin and respiratory system. Sensitization may occur from prolonged skin contact.

**EFFECTS ON THE ENVIRONMENT:** Not available.

**CHEMICAL AND PHYSICAL HAZARDS:** Thermal decomposition can cause the release of toxic, irritant and flammable products: nitrogen oxides, carbon oxides (CO, CO<sub>2</sub>), carboxylic acids and aldehydes.

**SPECIFIC HAZARDS:** Not available.

**CARCINOGENIC INFORMATION:** Not available.

## 3. COMPOSITION

INGREDIENT	CAS Number	%	DANGER SYMBOL	RISK PHRASES
4.4'-(1-methyl ethylidene) bisphenol	80-05-7	10-30	X <sub>i</sub>	R: 36/37/38-43
1-(2-aminoethyl) piperazine (AEP)	140-31-8	10-30	X <sub>n</sub> , C	R: 21/22-34-43-52/53
Nonylphenol	25154-52-3	10-30	X <sub>n</sub> , C, N	R: 22-34-50/53
Polyethylene polyamine	29320-38-5	10-30	None known.	None known.
Benzyl alcohol	100-51-6	5-10	X <sub>n</sub>	R: 20/22
Benzyl dimethylamine	103-83-3	1-5	X <sub>n</sub> , C	R: 10-20/21/22-34-52/53
N-(3-(trimethoxysilyl) propyl) 1,2-ethanediamine	1760-24-3	1-5	None known.	None known.
Tetraethylene polyamines	112-57-2	1-5	X <sub>n</sub> , C, N	R: 21/22-34-43-51/53



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#### 4. FIRST AID MEASURES

SKIN CONTACT:	Wash with soap and water for 15 minutes. Remove contaminated clothing and seek medical attention.
EYE CONTACT:	Rinse with plenty of water for 15 minutes. Seek medical attention.
INHALATION:	Take the affected person to a place with fresh air. If they are not breathing, a person trained in first aid should give them artificial respiration. Consult the medical service.
INGESTION:	Seek immediate medical attention. Do not induce vomit.

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#### 5. FIRE FIGHTING MEASURES

EXTINGUISHING AGENTS:	Water spray, dry chemical and carbon dioxide.
EXPOSURE RISKS:	Not available.
PROTECTIVE EQUIPMENT:	Wear self-contained breathing equipment.
DECOMPOSITION PRODUCTS:	Thermal decomposition can cause the release of toxic, irritant and flammable products: nitrogen oxides, carbon oxides (CO, CO <sub>2</sub> ), carboxylic acids and aldehydes.

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#### 6. MEASURES TO CONTROL SPILLS OR LEAKS

PERSONAL PROTECTION:	Use personal protective equipment. Remove all sources of ignition.
ENVIRONMENTAL PRECAUTIONS:	Prevent spilled product from reaching drains.
CLEANING METHODOLOGY:	Use inert absorbent materials and store them in closed containers. Dispose according to federal, provincial and municipal legislation.

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#### 7. HANDLING AND STORAGE

HANDLING:	Maintain good personal hygiene. All equipment must be grounded.
STORAGE:	Store in a dry and refrigerated environment, away from incompatible materials and any source of ignition.
MATERIALS TO AVOID:	Strong acids and oxidizers (perchlorates, nitrates).
VENTILATION:	Adequate ventilation is recommended.

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#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:	Adequate ventilation is recommended.
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**RESPIRATORY PROTECTION:** Use NIOSH approved organic respirator during application and handling in areas where vapor or dew is near the airways. After application and drying, use a dust respirator when performing sandblasting or grinding activities.

**SKIN PROTECTION:** Wear chemical resistant gloves when handling the product. Waterproof boots and protective clothing should also be worn.

**EYE PROTECTION:** Wear safety glasses.

#### EXPOSURE DATA:

INGREDIENT	CAS Number	LD <sub>50</sub> (species and route)	LC <sub>50</sub> (species and route)	OSHA (PEL) TWA	ACGIH (TLV) TWA
4,4'-(1-methyl ethylidene) bisphenol	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.
Nonylphenol	25154-52-3	Mouse, oral: 1231 mg/kg Rabbit, dermal: 2140 mg/kg	Not available.	Not available.	Not available.
Polyethylene polyamine	29320-38-5	Not available.	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.
Benzyl dimethylamine	103-83-3	Rat, oral: 265 mg/kg Rabbit, dermal: 1660 mg/kg	Mouse, 2H: 2800 mg/m <sup>3</sup>	Not available.	Not available.
N-(3-(trimethoxysilyl) propyl) 1,2-ethanediamine	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.

## 9. CHEMICAL AND PHYSICAL PROPERTIES

**PHASE:** Liquid

**APPEARANCE:** Moderately slimy



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ODOR:	Ammonia	MELTING POINT:	Not available
COLOR:	Amber	EVAPORATION RATE:	Not available
BOILING POINT:	Not available.	VAPOR PRESSURE: (mmHg)	Not available
SPECIFIC GRAVITY: (WATER=1)	1.040	WATER / OIL DISTRIBUTION COEFFICIENT:	Not available
WATER SOLUBILITY:	Not available.	VAPOR DENSITY:	Not available

### 10. STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions. Does not generate dangerous polymerization.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition can cause the release of toxic, irritant and flammable products: nitrogen oxides, carbon oxides (CO, CO <sub>2</sub> ), carboxylic acids and aldehydes.
CONDITIONS/MATERIALS TO AVOID:	Avoid high temperatures and contact with strong acids and oxidizers, perchlorates, nitrates).
INFLAMMABILITY INFORMATION:	
Decomposition temperature:	Not available
Flashpoint:	Not available
Autoignition temperature:	Not available
EXPLOSION DATA:	
Static discharge:	Not available
Mechanical impact:	Not available.
Lower explosion limit (LEL - %):	Not available.
Upper explosion limit (UEL - %):	Not available.

### 11. TOXICOLOGICAL INFORMATION

EFFECTS BY CONTACT WITH THE EYES:	Severe irritant, burns to the eyes can severely affect contact tissue and lead to scarring.
EFFECTS OF CONTACT WITH SKIN:	It generates burns, severe irritations and can cause allergic reactions.
INHALATION EFFECTS:	Severe irritant of the respiratory tract, can cause severe tissue damage and scarring.
INGESTION EFFECTS:	Dangerous if swallowed. Can cause death unless treated immediately.



TOXICOLOGICAL INFORMATION:

Effects from acute exposure:	See above.
Effects from chronic exposure:	May have adverse effects on eyes, skin and respiratory system, causing skin sensitization due to prolonged contact with the product.
Material irritability:	See acute effects.
Sensitizing capacity:	Yes.
Carcinogenicity:	Not available.
Reproductive toxicity:	Not available.
Teratogenicity:	Not available.
Mutagenicity:	Not available.
Synergistic materials:	Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OTHER EFFECTS AND INFORMATION: Not available.

13. DISPOSAL CONSIDERATIONS

PRODUCT IN CONDITION OF SALE: Dispose according to federal, provincial and municipal legislation.

PRODUCT PACKAGING: Dispose according to federal, provincial and municipal legislation.

SPECIAL INSTRUCTIONS: Not available.

14. SHIPPING INFORMATION

SHIPPING NAME: Tecnosleeve-epoxy – AMINES, LIQUID, CORROSIVE, N.O.S.

UN PIN/NUMBER: UN 2735

PACKING GROUP: III

TDG REGULATION: Amines, liquid, corrosive, N.O.S.

DOT REGULATION: Amines, liquid, corrosive, N.O.S.

IATA REGULATION: Amines, liquid, corrosive, N.O.S.

SPECIAL SHIPPING INSTRUCTIONS: Not available.

15. REGULATORY INFORMATION

The regulatory information provided is not intended to be exhaustive. Other local, state, provincial, federal, international or country-specific regulations may apply for this material.



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SISTEMA DE RECUBRIMIENTO

HOJA DE DATOS DE SEGURIDAD - MSDS

This product has been classified according to the Controlled Products Regulations (CFR) dangerousness criteria for controlled products and the safety data sheet contains all the information required by the CPR.

GENERAL INFORMATION ABOUT THE PRODUCT:

WHMIS Classification: D1B, D2A, D2B, E

PRODUCT COMPOSITION ANALYSIS:

INGREDIENT	CAS Number	CANADA WHMIS IDL	US CERCLA PRIORITY
4.4'-(1-methyl ethylidene) bisphenol	80-05-7	YES	NO
1-(2-aminoethyl) piperazine (AEP)	140-31-8	YES	NO
Nonylphenol	25154-52-3	YES	NO
Polyethylene polyamine	29320-38-5	NO	NO
Benzyl alcohol	100-51-6	YES	NO
Benzyl dimethylamine	103-83-3	YES	NO
N-(3-(trimethoxysilyl) propyl) 1,2-ethanediamine	1760-24-3	NO	NO
Tetraethylene polyamines	112-57-2	YES	NO

COMPOSITION ANALYSIS - STATUS OF INVENTORY:

INGREDIENT	CAS Number	CANADA DSL	US TSCA	EU EINECS	AUSTRALIA AICS
4.4'-(1-methyl ethylidene) bisphenol	80-05-7	YES	YES	YES 201-245-8	YES
1-(2-aminoethyl) piperazine (AEP)	140-31-8	YES	YES	YES 205-441-0	YES
Nonylphenol	25154-52-3	YES	YES	YES 246-672-0	YES
Polyethylene polyamine	29320-38-5	YES	YES	NO	YES
Benzyl alcohol	100-51-6	YES	YES	YES 202-859-9	YES
Benzyl dimethylamine	103-83-3	YES	YES	YES 203-149-1	YES
N-(3-(trimethoxysilyl) propyl) 1,2-ethanediamine	1760-24-3	YES	YES	YES 217-164-6	YES
Tetraethylene polyamines	112-57-2	YES	YES	YES 203-986-2	YES

## 16. OTHER INFORMATION

Revision Date: 07 Jul 2016