SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WEST SYSTEM SIX10 Part B Hardener

APPLICABLE PRODUCT CODES:610B

CHEMICAL FAMILY: Rubber modified-polyamine mixture.

INTENDED PRODUCT USES:.....Curing agent for epoxy resins.

PRODUCT RESTRICTIONS: None identified. SDS VERSION: 610B-2016a

MANUFACTURER:

Gougeon Brothers, Inc. 100 Patterson Ave. Bay City, MI 48706, U.S.A.

Phone: 866-937-8797 or 989-684-7286

www.westsystem.com

EMERGENCY TELEPHONE NUMBERS (24 HRS):

Transportation

CHEMTREC:..... 800-424-9300 (U.S.)

703-527-3887 (International)

Non-transportation

Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture

Skin corrosion/irritation, Category 1B Skin sensitizer, Category 1 Eye damage/irritation, Category 1 Germ cell mutagenicity, Category 2

Specific target organ toxicity - repeated exposure, Category 2

Acute aquatic toxicity, Category 3 Chronic aquatic toxicity, Category 3

Label Elements

Hazard Pictogram(s):



Signal Word:

DANGER

Hazard Statements:

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

H341 Suspected of causing genetic defects

H373 May cause damage to organs through prolonged or repeated exposure

H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:

Prevention

P201 Obtain special instruction before use

P202 Do not handle until all safety precautions have been read and understood

P260 Do not breathe dust/fumes/gas/mists/vapors/spray

P264 Wash hands thoroughly after handling

P272 Contaminated work clothing should not be allowed out of the workplace

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

P301 + P330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse or wash skin with soap and water (or shower)

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention

P310 Immediately call a POISON CONTROL CENTER or doctor

P333 + P313 If skin irritation or rash occurs: Get medical attention/advice

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

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P501 Dispose of contents and container according to local, state, national and international regulations

Other Hazards

None known.

COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME	CAS#	CONCENTRATION (%)	
ATBN polymer	68683-29-4	10-40	
Polyoxypropylenediamine	9046-10-0	10-40	
Benzyl alcohol	100-51-6	10-40	
Non-hazardous	NA	5-20	
Reaction products of triethylenetetramine with phenol and formaldehyde	32610-77-8	5-20	
Triethylenetetramine Phenol, 2.4,6-tris[(dimethylamino)methyl] reaction products with	112-24-3	1-10	
triethylenetetramine	1101788-77-5	1-10	
Synthetic amorphous pyrogenic silica	112945-52-5	1-10	
Hydroxybenzene	108-95-2	1-5	
Benzene-1,3-dimethanamine	1477-55-0	1-5	
Polymer of epichlorohydrin / bisphenol A and diethylenetriamine	31326-29-1	1-5	
Diethylenetriamine	111-40-0	1-5	

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as a trade secret. Ingredient ranges provided may represent actual concentration ranges. Any ingredient not disclosed may have been determined not to pose a health or environmental hazard, or may only be present in concentrations that do not require disclosure. Refer to Section 15 for additional information regarding a WHMIS CBI claim.

FIRST AID MEASURES

	SYMPTOMS: Causes eye burns and eye damage. RESPONSE: Flush es if present and easy to do. Immediately call a POISON CONTROL CENTER
	SYMPTOMS: Causes eye burns and eye damage. May cause allergic skin soap and water. Immediately call a POISON CONTROL CENTER or doctor.
	SYMPTOMS: Can cause shortness of breath or cough upon exposure to NSE: Remove to fresh air if effects occur and keep comfortable for breathing. ms develop and persist or if you feel unwell.
	SYMPTOMS: May cause gastrointestinal irritation or ulceration. omiting should occur, keep airway clear. Immediately call POISON CONTROL

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: SUITABLE: Foam, carbon dioxide (CO₂), dry chemical. NON-SUITABLE: Direct water stream. combustion products of varying composition which may be toxic and/or irritating. Combustion products may include, but are not limited to: oxides of nitrogen, oxides of carbon, volatile amines, ammonia, nitric acid, aldehydes, nitrosamines. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.

SPECIAL FIRE FIGHTING PROCEDURES: This product is not considered a fire hazard, but may burn if ignited. Hot vapor or mists may be susceptible to spontaneous combustion when mixed with air. Ignition temperatures decreases with vapor volume and vapor/air contact time, and are influence by pressure changes. Therefore, ignition may occur below published ignition temperatures. Use of this product in processes involving elevated temperatures, vacuum (if subject to sudden ingress of air), or sudden escape of vapor or mist, etc., must be thoroughly evaluated to ensure a safe operation.

Use full-body protective gear and a self-contained breathing apparatus. Use of water may generate toxic aqueous solutions. Do not allow water run-off from fighting fire to enter drains or other water courses.

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6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND PROTECTIVE EQUIPMENT: Keep unnecessary and unprotected personnel from entering area. Use appropriate safety and personal protective equipment as indicated in Section 8.

MITIGATION AND CLEAN UP PROCEDURES: Stop leak without additional risk. Isolate area. Dike and absorb with inert material (*e.g.*, sand) and collect in a suitable, closed container. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Warm, soapy water may be used to clean residual.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 40°F (4°C) / 90°F (32°C).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

Ingredient Name	CAS#	Exposure Limit Information
ATBN polymer	68683-29-4	No data available
Polyoxypropylenediamine	9046-10-0	No data available
Benzyl alcohol	100-51-6	10 ppm TWA (WEEL)
Non-hazardous	NA	No data available
Reaction products of triethylenetetramine with phenol and formaldehyde	32610-77-8	No data available
Triethylenetetramine	112-24-3	AIHA WEEL: 1 ppm; 6 mg/ m3; Absorbed via skin
Phenol, 2,4,6-tris[(dimethylamino)methyl]		(Reference Triethylenetetramine, CAS# 112-24-3)
reaction products with triethylenetetramine	1101788-77-5	AIHA WEEL: 1 ppm; 6 mg/ m3; Absorbed via skin
Synthetic amorphous pyrogenic silica	112945-52-5	Amorphous silica: OSHA PEL 6 mg/m³ Dust and PNOS: ACGIH 10mg/m³, TWA, Inhalable; 3 mg/m³, TWA, Respirable; OSHA PEL 15 mg/m³, TWA, total dust; 5 mg/m³, TWA, Respirable
Hydroxybenzene	108-95-2	ACGIH TWA: 5 ppm; 19 mg m ³ ; BEI [®] Index Substance NIOSH REL: 5 ppm; 19 mg/ m ³ OSHA PEL: 5 ppm; 19 mg m ³ ; Table Z-1 NIOSH CEILING: 15.6 ppm; 60 mg/m ³ ; Danger of cutaneous absorption 0.1 mg/m3 SKIN, Ceiling NIOSH: OSHA Z1A
Benzene-1,3-dimethanamine	1477-55-0	Remarks: potential for skin absorption
Polymer of epichlorohydrin / bisphenol A and diethylenetriamine	31326-29-1	No data available
Diethylenetriamine	111-40-0	ACGIH TWA 1ppm; SKIN

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	
COLOR:	Off-white colored.
ODOR:	Amine-like odor
ODOR THRESHOLD:	No data available.
pH	10.59
MELTING POINT / FREEZING POINT	
BOILING POINT (760mm/Hg):	No data available.
FLASH POINT:	> 300°F(149°C) estimated based similar product.
AUTO IGNITION TEMPERATURE	No data available.
LOWER EXPLOSIVE LIMIT (LEL)	No data available.
UPPER EXPLOSIVE LIMIT (UEL)	No data available.
VAPOR PRESSURE	No data available.
SPECIFIC GRAVITY/DENSITY (water = 1)	1.04
BULK DENSITY	8.67 lbs./gal. (1.04 kg/L)
VAPOR DENSITY (air = 1)	
EVAPORATIOIN RATE (Butyl Acetate = 1)	
WATER SOLUBILITY (% BY WT.)	No data available.
PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow)	No data available.
KINEMATIC VISCOSITY:	Gel (mm²/s @ 20°C)
DECOMPOSITION TEMPERATURE:	No data available
% VOLATILE BY WEIGHT:	ASTM 2369-07 was used to determine the Volatile Matter Content of mixed
epoxy resin and hardener. The combined VOC content for the resin	and hardener system is listed below.

VOC Content (g/L) (lbs/gal) 11.8 0.10

10. STABILITY AND REACTIVITY

Resin/Hardener 610A/610B.....

STABILITY:	Product is stable at normal temperatures and pressures.
REACTIVITY/HAZARDOUS REACTIONS: mixed with an epoxy resin will cause irreversible polymerization with	Product will not react by itself. A mass of more than one pound of product significant heat buildup. Strong acids can cause polymerization.
	Avoid acids, oxidizing materials, halogenated organic compounds (e.g., rapid temperature increase and pressure build up. If such a condition were to
CONDITIONS TO AVOID:	Avoid excessive heat, ignition sources.
DECOMPOSITION PRODUCTS: decomposition. Decomposition products may include, but not limited aldehydes, nitrosamines.	Very toxic fumes and gases when burned or otherwise heated to l to: oxides of nitrogen, oxides of carbon, volatile amines, ammonia, nitric acid,

11. TOXICOLOGICAL INFORMATION

Ingredient Name	CAS#	LD ₅₀ Oral	LD ₅₀ Dermal	LC ₅₀ Inhalation
ATBN polymer	68683-29-4	>15,400 mg/kg	>3000 mg/kg	No data available
		2855 mg/kg	2980 mg/kg	>0.74 mg/L 8h
Polyoxypropylenediamine	9046-10-0			vapor
				>4.18 mg/l
Benzyl alcohol	100-51-6	1620 mg/kg	No data available	4h aerosol
Non-hazardous	NA	No data available	No data available	No data available
Reaction products of triethylenetetramine with	32610-77-8			
phenol and formaldehyde		No data	No data	No data
Triethylenetetramine	112-24-3	1716 mg/kg	1465 mg/kg	No data
Phenol, 2,4,6-tris[(dimethylamino)methyl]		1716 mg/kg (reference	1465 mg/kg	No data
reaction products with triethylenetetramine	1101788-77-5	Triethylenetetramine)		
Synthetic amorphous pyrogenic silica	112945-52-5	>5000 mg/kg	>2000 mg/kg	No data
Hydroxybenzene	108-95-2	317 mg/kg	630 mg/kg (solid)	0.9 mg/l; 8h
				1.34 mg/l 4h mist /
Benzene-1,3-dimethanamine	1477-55-0	980 mg/kg	2000 mg/kg	aerosol
Polymer of epichlorohydrin / bisphenol A and	31326-29-1	1620 mg/kg	No data available	No data available
diethylenetriamine				
				¹ 0.07-0.3 mg/l 4h
Diethylenetriamine	111-40-0	1080 mg/kg	1090 mg/kg	mist/aerosol

^{1.} LC50 data has been generated for this substance by subjecting rats to an airborne aerosol/mist atmosphere in a test chamber. It has not been determined that this data directly correlates to an inherent hazard of this product as would be expected under normal, foreseeable or anticipated conditions of use.

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ACUTE TOXICITY:		ity data exists for this mixture. Classification is
based on acute toxicity estimation methods using ingronal: acute dermal toxicity classification criteria. Ingest Dermal:	Not classified. B ion may result in gastrointe	stinal irritation or ulcer.
acute dermal toxicity classification criteria. Howe Absorption of phenolic solutions through the skin spleen, and cause edema of the lungs.	ver, product contains mater may be very rapid and can	als that are readily absorbed through the skin. cause damage to the kidneys, liver, pancreas,
Inhalation: meet acute inhalation toxicity classification criteri		ased on available data this product does not
SKIN CORROSION / IRRITATION:	Category 1B. Ca	uses severe skin burns. Effects may be
SERIOUS EYE DAMAGE / IRRITATION:vision. May cause corneal damage resulting in vision impair	Category 1. Caument or even blindness.	ses serious eye damage. May cause blurred
RESPIRATORY SENSITIZATION: meet classification criteria.	Not classified. B	ased on available data this product does not
SKIN SENSITIZATION:	Category 1. May	cause allergic skin reaction.
REPRODUCTIVE TOXICITY:	Not classified. B	ased on available data this product does not meet
MUTAGENICITY:that is suspected of causing genetic defects.	Category 2. This	product contains a substance (phenol, CAS# 108-95
CARCINOGENICITY: classification criteria.	Not classified. B	ased on available data this product does not meet
SPECIFIC TARGET ORGAN TOXICITY (Single Exposure classification criteria. However, it is anticipated that inhalatic respiratory track and may cause central nervous system eff	on of concentrated vapors o	
SPECIFIC TARGET ORGAN TOXICITY (Repeated Expos through the skin. Absorption of phenolic solutions through the spleen, and cause edema of the lungs.		
ASPIRATION HAZARD: classification criteria.	Not classified. B	ased on available data this product does not meet
OTHER HEALTH HAZARD INFORMATION:by inhalation when aerosolized due to spraying or when a m sprayed or heated. While this product does not meet the cla aggravation of existing respiratory conditions, such as asthr	nist is formed due to heating ssification for a respiratory	. It is advised that exposure not occur to product that
ECOLOGICAL INFORMATION		
ACUTE AQUATIC TOXICITY:available for the mixture. Calculated estimate based on ingr		
CHRONIC AQUATIC TOXICITY:specific test data is available for the mixture. Calculated est		
PERSISTANCE AND BIODEGRADABILITY:	No specific test	data available for the mixture.
MOBILITY IN SOIL:	No specific test	data available for the mixture.
ADDITIONAL ECOTOXICITY INFORMATION:		tate, this product may be harmful to aquatic life.
Prevent release to the environment, sewers and natural wat	ers.	

Ingredient	CAS#	Ecotoxicity Classification Information
ATBN polymer	68683-29-4	No data available
Polyoxypropylenediamine	9046-10-0	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 2
Benzyl alcohol	100-51-6	No data available
Non-hazardous	NA	No data available
Reaction products of triethylenetetramine with phenol and formaldehyde	32610-77-8	Aquatic Chronic Cat. 3
Triethylenetetramine	112-24-3	Aquatic Chronic Cat. 3
Phenol, 2,4,6-tris[(dimethylamino)methyl] reaction		(Reference Triethylenetetramine); Aquatic Chronic Cat.
products with triethylenetetramine	1101788-77-5	3
Synthetic amorphous pyrogenic silica	112945-52-5	No data available

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WEST SYSTEM® SIX10 Part B Hardener

Hydroxybenzene	108-95-2	Aquatic Acute Cat. 3; Aquatic Chronic Cat. 2
Benzene-1,3-dimethanamine	1477-55-0	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 3
Polymer of epichlorohydrin / bisphenol A and	31326-29-1	
diethylenetriamine		No data available
Diethylenetriamine	111-40-0	No data available

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods

Incinerate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

US DOT

UN NUMBER: UN 3259
SHIPPING NAME: Polyamines, solid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: Polyoxypropylenediamine
HAZARD CLASS: Class 8
PACKING GROUP: PG III

MARINE POLLUTANT: No

CANADA TDG

UN NUMBER: UN 3259
SHIPPING NAME: Polyamines, solid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: Polyoxypropylenediamine
HAZARD CLASS: Class 8
PACKING GROUP: PG III

IMDG

UN NUMBER: UN 3259
SHIPPING NAME: Polyamines, solid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: Polyoxypropylenediamine
HAZARD CLASS: Class 8
PACKING GROUP: PG III
EmS Number: F-A, S-B
MARINE POLLUTANT No

ICAO/IATA

UN NUMBER: UN 3259
SHIPPING NAME: Polyamines, solid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: Polyoxypropylenediamine
HAZARD CLASS: Class 8
PACKING GROUP: PG III
MARINE POLLUTANT: No

15. REGULATORY INFORMATION

COUNTRY	INVENTORY LIST	STATUS
United States	TSCA	All ingredients are listed or otherwise compliant.
Europe	EINECS or ELINCS	No data available on CAS# 1101788-77-5
Canada	CEPA (DSL/NDSL)	CAS# 1101788-77-5 listed on NDSL only.
Australia	AICS	No data available on CAS# 1101788-77-5
Japan	ENCS	No data available on CAS# 1101788-77-5
South Korea	KECI	No data available on CAS# 1101788-77-5
China	IECSC	No data available on CAS# 1101788-77-5
Philippines	PICCS	No data available on CAS# 1101788-77-5

Canada WHMIS Confidential Business Information (CBI):...... The HMIRA number issued for this CBI claim is #10442. The date of filing is 2016-10-13.

US EPA SARA TITLE III Reporting and Notification Requirements:

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US STATE REGULATORY INFORMATION:

The following chemicals may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

COMPONENT NAME

/CAS NUMBER		STATE CODE
Triethylenetetramine 112-14-3 Benzene-1,3-dimethanamine		PA, MA, NJ
1477-55-0		MA, PA, NJ
Hydroxybenzene 108-95-2 Diethylenetriamine		PA, MA, NJ, IL, RI
111-40-0		PA
Amorphous silica 7631-86-9 or 112945-52-5 Propylene oxide		PA, NJ, MA
75-56-9	< 0.0017%	¹ CA

^{1.} These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

APPROVED BY: G. M. House
SDS CONTACT: safety@gougeon.com

TITLE: Health, Safety & Environmental Manager

 APPROVAL DATE:
 October 17, 2016

 SUPERSEDES DATE:
 June 1, 2015

 SDS VERSION:
 610B-2016a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

HEALTH:	3
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 = Low or None; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe

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