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-2019a

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

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.

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.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

run-off from fighting fire to enter drains or other water courses.

INGREDIENT NAME	CAS#	CONCENTRATION (%)
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	68683-29-4	10-30
Polyoxypropylenediamine	9046-10-0	10-30
Benzyl alcohol	100-51-6	10-30
Non-hazardous	NA	7-13
Reaction products of triethylenetetramine with phenol and formaldehyde	32610-77-8	7-13
Triethylenetetramine	112-24-3	7-13
Phenol, 2,4,6-tris[(dimethylamino)methyl] reaction products with triethylenetetramine	1101788-77-5	1-5
Synthetic amorphous pyrogenic silica	112945-52-5	5-10
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 confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

4. FIRST AID MEASURES

	FIRST AID FOR EYES	
	FIRST AID FOR SKINSYMPT reaction and sensitization. RESPONSE: Immediately wash skin with soap and	
	FIRST AID FOR INHALATION	nove to fresh air if effects occur and keep comfortable for breathing.
	FIRST AID FOR INGESTION	OMS: May cause gastrointestinal irritation or ulceration. ould occur, keep airway clear. Immediately call POISON CONTROL
5.	5. FIRE FIGHTING MEASURES	
	EXTINGUISHING MEDIA: SUITAE Direct water stream.	BLE: Foam, carbon dioxide (CO ₂), dry chemical. NON-SUITABLE:
	FIRE AND EXPLOSION HAZARDS:	g. Combustion products may include, but are not limited to: oxides nitrosamines. When mixed with sawdust, wood chips, or other
	SPECIAL FIRE FIGHTING PROCEDURES:	h air. Ignition temperatures decreases with vapor volume and ion may occur below published ignition temperatures. Use of this

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Use full-body protective gear and a self-contained breathing apparatus. Use of water may generate toxic aqueous solutions. Do not allow water

6. ACCIDENTAL RELEASE MEASURES

7. HANDLING AND STORAGE

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: exposures below established limits.	Use with adequate general ventilation and/or local ventilation to keep
EYE PROTECTION GUIDELINES:	Chemical splash-proof goggles or face shield.
SKIN PROTECTION GUIDELINES: butyl rubber or natural rubber) and full body-covering clothing.	. Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene
	. When ventilation cannot be made adequate enough to keep exposures ganic vapor cartridge, organic vapor cartridge + P100, or a multi-contaminar

below established limits, use a NIOSH approved respirator with an organic vapor cartridge, organic vapor cartridge + P100, or a multi-contaminant cartridge, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.

Ingredient Name	CAS#	Exposure Limit Information
2-Propenenitrile, polymer with 1,3-		No data available
butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-		
piperazinyl)ethyl]amino]butyl-terminated	68683-29-4	
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
		Amorphous silica: OSHA PEL 6 mg/m ³
Synthetic amorphous pyrogenic silica	112945-52-5	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 ; BEl [®] Index Substance NIOSH REL: 5 ppm; 19 mg/ m ³
		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	31326-29-1	No data available

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and diethylenetriamine		
Diethylenetriamine	111-40-0	ACGIH TWA 1ppm; SKIN

PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Off-white colored. ODOR: Amine-like odor FLASH POINT:...> 300°F(149°C) estimated based similar product. **SPECIFIC GRAVITY/DENSITY (water = 1).....** 1.04 PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow)............ No data available.

epoxy resin and hardener. The combined VOC content for the resin and hardener system is listed below.

VOC Content (lbs/gal) (g/L) 610A/610B..... 0.10

10. STABILITY AND REACTIVITY

Resin/Hardener

STABILITY: Product is stable at normal temperatures and pressures. REACTIVITY/HAZARDOUS REACTIONS: Product will not react by itself. A mass of more than one pound of product mixed with an epoxy resin will cause irreversible polymerization with significant heat buildup. Strong acids can cause polymerization. methylene chloride). External heating or self-heating could result in rapid temperature increase and pressure build up. If such a condition were to occur in a drum, the drum could expand and rupture violently. decomposition. Decomposition products may include, but not limited to: oxides of nitrogen, oxides of carbon, volatile amines, ammonia, nitric acid, aldehydes, nitrosamines.

11. TOXICOLOGICAL INFORMATION

Ingredient Name	CAS#	LD ₅₀ Oral	LD ₅₀ Dermal	LC ₅₀ Inhalation
2-Propenenitrile, polymer with 1,3-butadiene, 1-		>15,400 mg/kg	>3000 mg/kg	No data available
cyano-1-methyl-4-oxo-4-[[2-(1-				
piperazinyl)ethyl]amino]butyl-terminated	68683-29-4			
		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

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Diethylenetriamine	111-40-0	1080 mg/kg	1090 mg/kg	mist/aerosol
^{1.} LC50 data has been generated for this substant not been determined that this data directly correlat foreseeable or anticipated conditions of use.	e by subjecting rats to a ses to an inherent hazard	n airborne aerosol/mist atm d of this product as would be	osphere in a test chamle expected under norma	oer. It has al,
ACUTE TOXICITY: based on acute toxicity estimation methods u Oral: acute dermal toxicity classification crite Dermal: acute dermal toxicity classification crite Absorption of phenolic solutions throug spleen, and cause edema of the lungs. Inhalation: meet acute inhalation toxicity classificat	using ingredient data	classified. Based on availal in gastrointestinal irritation classified. Based on availal intains materials that are rea apid and can cause damage	ole data product does no ulcer. ole data product does no adily absorbed through to the kidneys, liver, p	not meet not meet the skin. ancreas,
SKIN CORROSION / IRRITATION:immediate. May cause persistent irritation or de		egory 1B. Causes severe sk	kin burns. Effects may b	pe
SERIOUS EYE DAMAGE / IRRITATION:vision. May cause corneal damage resulting in vision.			e damage. May cause l	olurred
RESPIRATORY SENSITIZATION: meet classification criteria.	Not	classified. Based on availal	ole data this product do	es not
SKIN SENSITIZATION:	Cat	egory 1. May cause allergic	skin reaction.	
REPRODUCTIVE TOXICITY:classification criteria.	Not	classified. Based on availal	ole data this product do	es not meet
MUTAGENICITY:that is suspected of causing genetic defects.	Cat	egory 2. This product contain	ins a substance (pheno	I, CAS# 108-95-2)
CARCINOGENICITY:classification criteria.	Not	classified. Based on availal	ole data this product do	es not meet
SPECIFIC TARGET ORGAN TOXICITY (Single E classification criteria. However, it is anticipated that respiratory track and may cause central nervous s	t inhalation of concentra			
SPECIFIC TARGET ORGAN TOXICITY (Repeate through the skin. Absorption of phenolic solutions spleen, and cause edema of the lungs.				
ASPIRATION HAZARD:classification criteria.	Not	classified. Based on availal	ole data this product do	es not meet
OTHER HEALTH HAZARD INFORMATION: by inhalation when aerosolized due to spraying or sprayed or heated. While this product does not me aggravation of existing respiratory conditions, such	when a mist is formed deet the classification for a	ue to heating. It is advised t	hat exposure not occur	to product that is

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY:available for the mixture. Calculated estimate based on ingredient date	
CHRONIC AQUATIC TOXICITY:specific test data is available for the mixture. Calculated estimate bas	
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:	In the uncured state, this product may be harmful to aquatic life.

Ingredient	CAS#	Ecotoxicity Classification Information
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-		No data available
terminated	68683-29-4	
Polyoxypropylenediamine	9046-10-0	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 2
Benzyl alcohol	100-51-6	No data available

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Non-hazardous	NA	No data available
Reaction products of triethylenetetramine with phenol and	32610-77-8	Aquatic Chronic Cat. 3
formaldehyde		
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
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	DO

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
MARINE POLLUTANT: No

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

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US EPA SARA TITLE III Reporting and Notification Requirements:

reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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

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

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

16. OTHER INFORMATION

REASON FOR ISSUE:	Updates to the health and physical classifications in section 2
PREPARED BY:	
SDS CONTACT:	
TITLE:	Health, Safety & Environmental Manager
APPROVAL DATE:	January 15, 2019
SUPERSEDES DATE:	October 17, 2016
SDS VERSION:	610B-2019a

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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