



SYNTHO-GLASS XT

Section 1 Product and Company Identification

Product Name: Syntho-Glass XT
Supplier: CSNRI | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491
Emergency Phone Number: 800.424.9300 (CHEMTREC)
 +1 703.741.5970 (Outside the US)
Product Description: Fiberglass cloth impregnated with water activated resin.
Product Use: Intended to repair pipes or for corrosion control.
Chemical Name or Synonym: N/A

Section 2 Hazards Identification

Classification of the substance or mixture

Acute toxicity/dermal – Category 4
 Acute toxicity/inhalation – Category 4
 Skin corrosion/irritation – Category 2
 Eye damage/eye irritation – Category 2
 Skin sensitization - Category 1
 Sensitization /Respiratory – Category 1
 Specific target organ toxicity (SE) – Category 3

Label Elements:



Hazard Statements:

H312 Harmful in contact with skin
 H334 May cause allergy or asthma or breathing difficulties if inhaled
 H332 Harmful if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction
 H335 – May cause respiratory irritation

Signal Word: DANGER!

Precautionary Statement:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

National Fire Protection Association Hazard Ratings – NFPA(R):

Health Hazard: 2
 Flammability: 1
 Reactivity: 0



Section 3 Composition/ Information on Ingredients

Chemical Name	CAS#	Weight %
Fiberglass Cloth (textile grade)	65997-17-3	65-70
Diphenylmethane diisocyanate (homopolymer)	39310-05-9	3-8
Diphenylmethane diisocyanate (MDI), containing Methylene Bisphenyl isocyanate, CAS 101-68-8	26447-40-5	10-25

Section 4 First Aid Measures

First Aid Measures for Accidental:

General Advice: Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

Eye Exposure: Flush with copious amount of water. Preferably lukewarm, for at least 15 minutes, holding eyelids open at all times. Refer individual to a physician or ophthalmologist for immediate follow up.

Skin Exposure: Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. Get under safety shower after removing clothing. Seek medical attention if irritation develops after area is washed.

Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in a side position for transportation.

Ingestion: Do not induce vomiting. Give one to two cups of milk or water to drink. Do not give anything by mouth to an unconscious person, consult a physician.

Most important symptoms/effects, acute and delayed:

May cause respiratory sensitization or asthma like symptoms. Bronchodilators, expectorants, and antitussives may be of help. Excessive exposure may aggravate pre-existing asthma and other respiratory disorders. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed for 2448 hours for signs of respiratory distress. Maintain adequate ventilation and oxygenation of the patient. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Although cholinesterase depression has been reported with this material, it is not of benefit in determining exposure and need not be considered in the treatment of persons exposed to the material. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Indication of immediate medical attention and special treatment needed: No further relevant information available.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, foam, water fog or fine spray. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. **Unsuitable Extinguishing Media:** Do not use direct water stream. May spread fire

Special Protective Equipment and Precautions for Fire-fighters: Wear positive pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes helmet, coat, pants, boots, and gloves). Avoid contact with this material during firefighting operations.

Specific Hazards Arising from the Chemical (Under Fire Conditions): During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include but are not limited to: nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide, and carbon dioxide.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: No action shall be taken involving any personal risk or without suitable training. Keep people at a distance and stay upwind. Evacuate surrounding areas. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. (See Section 8)

Environmental Precautions: Do not allow to enter sewers/ surface or ground water.

Methods and Materials for Containment and Cleaning Up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Section 7 Handling and Storage

Precautions for safe handling: Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Avoid contact with skin and eyes. Do not breathe aerosols or vapors. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Ensure good ventilation/exhaustion at the workplace.

Conditions for safe storage including any incompatibilities: Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep away from humidity and water. Keep container tightly closed and sealed until ready for use.

Section 8 Exposure Controls / Personal Protection

Component	Exposure limits		
	ACGIH	NIOSH	OSHA-PELs
4,4'-methylenediphenyl diisocyanate (101-68-8)	0.005 ppm (TWA)	ND	0.02 ppm Ceiling (STEL) 0.2 mg/m ³ Ceiling (STEL)
Fibrous glass dust	5 mg/m ³ (inhalable)	ND	5 mg/m ³ (respirable)

Appropriate Engineering Controls: Local exhaust should be used to maintain levels below the TLV whenever MDI is processed, heated or spray applied. Standard reference sources regarding industrial ventilation (i.e., ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation.

Personal Protective Equipment:

Respiratory Protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Eye / Face Protection: Wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

Skin Protection: The glove material has to be impermeable and resistant to the product. Cover as much of the exposed area as possible, with protective clothing.

Section 9 Physical and Chemical Properties

Physical Appearance:	Fiberglass cloth coated with viscous resin.
Odor:	Pungent
Odor Threshold:	ND
pH:	ND



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Melting Point Range:	N/A		
Boiling point:	ND		
Flash Point:	370°F (188°C)		
Evaporation rate:	ND		
Method Used:	N/A		
Flammability Limits (vol/vol%):	Lower:	N/A	Upper: N/A
Vapor Pressure:	ND		
Vapor Density:	ND		
Relative Density:	ND		
Specific Gravity:	2.5 (glass)		
Water Solubility:	Not soluble. Reacts with water to liberate CO ₂ gases. Dangerous reactions can occur in large masses producing toxic gases, hazardous runaway polymerization, and excessive heat caused by exothermic reaction.		
Partition coefficient (n-octanol/water):	ND.		
Auto-ignition Temperature:	Product is not self-igniting.		
Decomposition Temperature:	ND		
Viscosity:	ND		

Section 10 Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical Stability: Stable under standard use and storage conditions.

Possibility of Hazardous reactions: No dangerous reactions known. Hazardous polymerization can occur. Polymerization can be catalyzed by water and strong bases. Can react with itself at temperatures above 320F (160C).

Conditions to Avoid: Avoid temperatures above 105F (41C). Avoid temperatures below 75F (24C). Can react with itself at temperatures above 320F (160C). Product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems. Pressure build up can be rapid. Avoid moisture. Material reacts with water, releasing carbon dioxide, which can cause pressure build up and rupture of closed containers. Elevated temperatures accelerate this reaction.

Incompatible Materials / Chemicals: Avoid contact with acids, water, alcohols, amines, ammonia, bases, moist air, and strong oxidizers. Avoid contact with metals such as aluminum, brass, copper, galvanized metals, tin, zinc. Avoid contact with moist organic absorbents. Reaction with water will generate carbon dioxide and heat. Avoid contact with polyols and other Isocyanates.

Hazardous Decomposition Products: Hazardous combustion products may include but are not limited to: nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide, and carbon dioxide.

Section 11 Toxicological Information

For 26447-40-5 Diphenylmethane diisocyanate (MDI) containing Methylene bisphenyl isocyanate (CAS No: 10168-8):

Oral LD50 (rats): >1000 mg/kg

Dermal LD50 (rabbits): >2000 mg/kg

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitization: Sensitization possible through inhalation. Sensitization possible through skin contact.

Symptoms:

Inhalation: MDI/ vapors or mist at concentrations above the TLV can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function.

Eye Contact: Liquid, aerosols or vapor are irritating and can cause tearing, reddening and swelling. If left untreated, corneal damage can occur and injury is slow to heal. Damage, however, is usually reversible.

Skin Contact: Isocyanates react with skin protein and moisture and can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or blistering. Cured material is difficult to remove.

Ingestion: Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract. Symptoms can include: sore throat, abdominal pain, nausea, vomiting and diarrhea.

Chronic Health Effects

Mutagenicity (Effects on genetic material): Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in-vitro studies; other in-vitro studies were negative. Animal genetic toxicity studies were predominantly negative.

Other information (about experimental toxicology):

Cancer Information: Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI/Polymeric MDI (6mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Teratology (Birth Defects): In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

Reproductive Effects: Contains component(s) which have been shown to interfere with reproduction in animal studies. The component(s) is/are triethyl phosphate. The dose required to produce such effects are highly unlikely with the use of this product.

Numerical measures of toxicity: No specific data

Delayed and immediate effects and also chronic effects from short and long-term exposure:

Short term exposure: No specific data.

Long term exposure: No specific data

Carcinogenic Categories:

IARC (International Agency for Research on Cancer)

Titanium dioxide (13463-67-7) 2B

Benzoyl chloride (98-88-4) 2A

NTP (National Toxicology Program): None of the ingredients is listed.

Section 12 Ecological Information

Ecotoxicity: Based largely or completely on information for MDI and polymeric MDI: the measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ >100 mg/l in the most sensitive species tested). The LC₅₀ in earthworm *Eisenia foetida* is >1000 mg/kg.

Aquatic toxicity: No further relevant information available.

Persistence and degradability: Based largely or completely on information for MDI and polymeric MDI: in the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional Ecological Effects: Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment: Not applicable.

Other adverse effects: No further relevant information available.

**Section 13 Disposal Considerations**

Waste treatment methods: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging: Dispose of in accordance to all local, state, and/or national regulation.

Section 14 Transport Information**DOT / ADR / AND / IMDG / IATA**

UN number:	Not regulated
UN proper shipping name:	N/A
Transport hazard class:	N/A
Packing group:	N/A
Environmental hazard:	No

Section 15 Regulatory Information**SARA Regulations:**

Section 355 (extremely hazardous substance): None of the ingredients is listed

TSCA (Toxic Substance Control Act): All components of this product are on US Inventory or exempt.

Glass fiber does not meet the classification for a "dangerous substance" according to 67/548/EEC. Glass fiber is considered to be an article as defined in section 710.2 (F) of the U.S. TSCA and, as such, is exempt from section 8(a), 710.2 (f) and 704.5 (a).

Proposition 65:

Chemicals known to cause cancer: None of the ingredients is listed

Chemicals known to cause reproductive toxicity to females: None of the ingredients is listed

Chemicals known to cause reproductive toxicity to males: None of the ingredients is listed

Chemicals known to cause development toxicity: None of the ingredients is listed

EPA (Environmental Protection Agency): None of the ingredients is listed

OSHA Hazards: None of the ingredients is listed

Section 16 Other Information**Key Legend Information:**

N/A – Not Applicable

ND – Not Determined

ACGIH – American Conference of Governmental Industrial Hygienists

OSHA – Occupational Safety and Health Administration

PEL – Permissible Exposure Limit

NIOSH – National Institute for Occupational Safety and Health

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SAFETY DATA SHEET

SYNTHO-GLASS XT

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Date of issue: 09.19.16

Revision date: 01.05.2020

Supersedes: 11.01.19

Version: 11