1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Material name : Syntho-Glass
Product code :

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Fibreglass cloth impregnated with water-activated resin, intended to repair pipes or for corrosion control.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: CSNRI
Premier Park
Unit 11 Acheson Way
Trafford Park
Manchester
M17 1GA
Tel. : +44 (0)161 710 3485

Email (for SDSs) : eucontact@cs-nri.com

1.4 Emergency tel. no.

: +44 (0)161 710 3485 (Mon-Fri 08.30-17.00 hrs)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to 1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation:

Physical and Chemical Hazards	Not classified
Human health	Sk. Irrit.2: H315; Sk. Sens.1: H317; Eye Irrit.2: H319; Ac. Tox.4; H332; Resp. Sens.1: H334; STOT SE3: H335; Carc. 2; H351; STOT RE2; H373
Environment	Not classified

2.2 Label elements

Labelling according to EC Directives: 1272/2008/EC

Signal word: Danger **Contains:** 4,4'-Methylenediphenyl Diisocyanate; Benzene,1,1 Methylenebis Isocyanato Homopolymer

Pictogram(s):

Hazard Statements:	H315	Causes skin irritation
	H317	May cause an allergic skin reaction
	H319	Causes serious eye irritation
	H332	Harmful by inhalation.
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H335	May cause respiratory irritation
	H351	Suspected of causing cancer
	H373	May cause damage to organs through prolonged or repeated exposure.
Supplemental statement:	EUH204	Contains Isocyanates. May produce an allergic reaction.

Precautionary Statements:

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fumes.
P280	Wear protective gloves/eye protection.
P284	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	If exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/national regulations.

2.3 Other hazards No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures:

Hazardous components

Chemical Name	CAS No./ EC No./ Reg. No.	Classification (1272/2008/EC)	Content
4,4'-METHYLENEDIPHENYL DIISOCYANATE (MDI)	101-68-8 202-966-0 01-2119457014-47-xxxx	Skin Irrit. 2; H315: C ≥ 5% Skin Sens.1; H317 Eye Irrit. 2; H319: C ≥ 5% Acute Tox. 4; H332 Resp. Sens. 1; H334: C ≥ 0.1% STOT SE 3; H335: C ≥ 5% Carc. 2; H351 STOT RE 2; H373	10-25%
BENZENE,1,1 METHYLENEBIS ISOCYANATO HOMOPOLYMER	39310-05-9 609-645-8 Pre-reg.	Skin Irrit. 2; H315 Skin Sens.1; H317 Eye Irrit. 2; H319 Acute Tox. 4; H332 Resp. Sens. 1; H334 STOT SE 3; H335 Carc.2; H351 STOT RE2; H373	3-8%
GLASS, OXIDE, CHEMICALS	65997-17-3 266-046-0 01-2119990048-30-0000	Not classified but has a WEL	<0.5%

See Section 16 for the full text of the H-statements noted above.

Ingredient comments: also contains 65-70% Fibreglass cloth (textile grade); 0.02-0.08% organically bound silanes.

(1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation).

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Remove casualty from exposure ensuring one's own safety whilst doing so. Never give anything by mouth to an unconscious person.

Skin contact: Wash skin thoroughly with soap and warm water. Dry skin and apply replenishing cream.

4.1 Description of first aid measures (continued)

Eye contact: Rinse with water for 10 minutes and seek medical advice if irritation persists.

Ingestion: Unlikely due to the product's physical properties; if affected, rinse mouth with water and give water to drink. Do not induce vomiting. Seek medical advice.

Inhalation: Remove to fresh air. Keep the affected person warm and at rest. Get prompt medical attention.

4.2 Most important symptoms and effects, both acute and delayed: May cause irritation, reddening, swelling, rash, scaling or blistering of the skin. May irritate mucous membranes causing runny nose, sore throat, coughing etc. and flu-like symptoms. The onset of symptoms may be delayed for several hours. Overexposure to isocyanates has been reported to cause lung damage, including a decrease in lung function, which may be permanent. Individuals can become sensitised to isocyanates, which may be temporary or permanent.

4.3 Indication of any immediate medical attention and special treatment needed: See information above.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide; dry chemical powder; alcohol or polymer foam.
Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting: Irritating/toxic fumes may be released at elevated temperatures.

5.3 Advice for fire-fighters:

Special protective equipment: Wear self-contained breathing apparatus. Use personal protective equipment.

Further information: Standard procedure for chemical fires. Use water spray to cool unopened containers. Do not allow fire run-off to enter drains.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

No special procedures necessary.

6.2 Environmental precautions

Unlikely to be a cause for concern due to the product's physical properties.

6.3 Methods and materials for containment and cleaning up

Collect up with sand, earth, or vermiculite, and place in a labelled container for disposal in accordance with local/national regulations.

6.4 References to other sections

See sections 8 and 13 for personal protection and disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with standard good housekeeping practices.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well ventilated area. Protect from frost, heat and sunlight. Incompatible with oxidising agents. Keep away from food, drink and animal feed.

7.3 Specific end use(s): No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

Chemical name	8hr TWA	15min STEL	Information	Reference
4,4'-METHYLENEDIPHENYL DIISOCYANATE (MDI)	0.02 mg/m^3	0.07 mg/m^3	As Isocyanate (Sen)	EH40/2005
GLASS, OXIDE, CHEMICALS	5 mg/m^3	-	-	Supplier

DNEL:

DNEL (workers)	4,4'-Methylenediphenyl Diisocyanate
Chronic local effects (dermal)	28.7 mg/cm^2
Chronic systemic effects (dermal)	-
Chronic local effects (inhalation)	0.05 mg/m^3
Chronic systemic effects (inhalation)	0.05 mg/m^3

PNEC:

Environment	4,4'-Methylenediphenyl Diisocyanate
Aquatic Compartment (including sediment)	>1 mg/l Fresh water
	>0.1 mg/l Marine water
	>1 mg/l sewage treatment plant
Terrestrial Compartment	>1 mg/kg Dry soil
Atmospheric Compartment	No data

8.2 Exposure controls – Note: Because of the isocyanate content, persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

Engineering measures: Ensure there is sufficient ventilation of the area, with the use of local exhaust ventilation if necessary.

Personal protective equipment

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter. Sen: Capable of causing occupational asthma.

Hand protection: Nitrile rubber gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin and body protection: General workwear.

Hygiene measures: Observe good industrial hygiene and safety practices. Do not eat or drink whilst using the product.

Environmental exposure controls: Do not discharge into drains or rivers.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State and colour	Fibreglass cloth coated with viscous resin.
Odour	Pungent
Odour Threshold	No data available
Flammability	Non-flammable
Flash point	188°C (Pensky-Martens Closed Cup)
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosive properties	Not explosive
Thermal decomposition	No data available
Auto-ignition temperature	Not applicable
Oxidising properties	Non-oxidising
Solubility in water	Insoluble (reacts with water to release CO_2)
Solubility in other solvents	Not determined
pH	Not applicable
Melting point/range	No data available
Boiling point/range	No data available
Density	Not applicable
Vapour pressure	No data available
Specific gravity	2.5 (glass)
Partition coefficient: n-octanol/water	No data available
Viscosity (kinematic)	Not applicable
Evaporation rate	No data available

9.2 Other information No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity	Generally non-reactive.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	None if stored and used as directed.
10.4 Conditions to avoid	Contamination with water.
10.5 Incompatible materials	Acids, water, alcohols, amines, ammonia, bases, moist air, and strong oxidising agents. Avoid contact with metals such as aluminium, brass, copper, galvanised metals, zinc, tin; moist organic absorbents; polyols and other isocyanates.
10.6 Hazardous decomposition products	Combustion will generate smoke and toxic fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Chemical name	Oral (LD50)	Inhalation (LC50)	Dermal (LD50)
4,4'-METHYLENEDIPHENYL DIISOCYANATE (MDI)	9200 mg/kg (Rat)	1h: >2.24 mg/l	No data available

Skin corrosion/irritation: Contact may cause irritation and redness.

Serious eye damage/eye irritation: Contact may cause irritation and pain. The eyes may water profusely.

Respiratory or skin sensitisation: May cause sensitisation in some individuals.

Repeated dose toxicity: No data available.

11.1 Information on toxicological effects (continued)

Carcinogenicity: There is limited evidence of carcinogenicity for MDI in animal studies.

Mutagenicity: Not mutagenic

Toxicity for reproduction: Not toxic for reproduction.

Specific target organ toxicity (STOT): No data available.

Further information It is unlikely that this substance will be swallowed due to its physical properties. However, swallowing small amounts of the active material during normal handling may cause irritation of mouth/throat, nausea and stomach pain. Prolonged exposure to MDI (above the WEL) can cause coughing, wheezing, chest tightness, and asthma in sensitive individuals.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Chemical name	Species	Test	Value
4,4'-METHYLENEDIPHENYL DIISOCYANATE (MDI)	Daphnia	EC50 24h	0.35 mg/l

12.2 Persistence and degradability MDI reacts with water forming predominantly insoluble polyureas which appear to be stable in the aquatic and terrestrial environments. Expected to have a short tropospheric half-life in the atmospheric environment.
12.3 Bioaccumulative potential No data available.
12.4 Mobility in soil No data available.
12.5 Results of PBT and vPvB assessment Contains no PBT or vPvB substances.
12.6 Other adverse effects No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal operations: Dispose of in accordance with local and national regulations. Do not dispose of waste into sewer.
Do not dispose of together with household waste. Contact licensed waste disposal company.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn or use a cutting torch on the empty container.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport purposes. UN number not required.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK Regulatory References
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives
Regulations (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Statutory Instruments
The Chemicals (Hazard information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes
Health and Safety Executive Workplace Exposure Limits EH40.

15.2 Chemical Safety Assessment
Chemical Safety Assessments/Reports (CSA/CSR) are not required for mixtures.

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Regulation EU 453/2010, amending Regulation (EC) No 1907/2006 (REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals).

Tariff number: 35069900

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 (CLP):

Physical hazards:	On basis of test data/Expert judgement.
Health hazards:	Calculation method
Environmental hazards:	Calculation method

Full text of H-statements referred to under sections 2 and 3

H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation.
H332 Harmful if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 May cause respiratory irritation.
H351 Suspected of causing cancer
H373 May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms

CAS: Chemical Abstract Service (division of the American Chemical Society). {Section 3}.
STOT: Single Target Organ Toxicity (Section 3 and 11).
RE: Repeated exposure (section 3)
SE: Single exposure (Section 3)
TWA: Time-weighted average. (Section 8).
STEL: Short-term exposure limit. (Section 8).
DNEL: Derived No Effect Level (Section 8).
PNEC: Predicted No Effect Concentration (Section 8).
EC50: Effective Concentration, 50 percent. (Section 12).
LC50: Lethal Concentration, 50 percent. (Section 11/12).
LD50: Lethal Dose, 50 percent. (Section 11).
PBT: Persistent, Bioaccumulative, Toxic. (Section 12).
vPvB: very Persistent and very Bioaccumulative. (Section 12).

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.