

## SAFETY DATA SHEET

### Product: GeoBondX UVR – Part A - Base

Revision: 5/10/2016

Page 1 of 5

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

##### 1.1 Product Identifier:

Product Name: GeoBondX UVR – Part A - Base

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

Identified uses: Two Pack Hybrid Urethane for Resin-Bound Aggregate Systems

##### 1.3 Details of supplier of the safety data sheet

Supplier: Adbruf Ltd  
Gibbs Marsh Trading Estate  
Stalbridge, Dorset, DT10 2RX  
Tel: + 44 (0)1963 362640  
Fax: + 44 (0)1963 363762  
Email: [sales@adbruf.com](mailto:sales@adbruf.com)

Contact Person: Hassan Yousaf

##### 1.4 Emergency telephone number

Please contact: +44 (0)1963 362640

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification:

Physical &amp; chemical hazards / Fire and explosion hazards:

Inhalation: May cause respiratory irritation  
Skin contact: May be mildly irritating  
Eye contact: Rinse thoroughly with running water and seek medical advice  
Ingestion: Seek medical advice

##### 2.2 Label elements:



<b>Hazard statements :</b>	H303	May be harmful if swallowed
	H316	Causes mild skin irritation
	H317	May cause an allergic skin reaction
	H320	Causes eye irritation
	H335	May cause respiratory irritation

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

## SAFETY DATA SHEET

### Product: GeoBondX UVR – Part A - Base

Revision: 5/10/2016

Page 2 of 5

#### Precautionary statements:

P280	Wear protective gloves/protective clothing/eye protection/face protection
P331	Do not induce vomiting
P264	Wash skin thoroughly after handling
P370 + 378	In case of fire: use foam, carbon dioxide, dry powder or water fog for extinction
P501	Dispose of contents/container in accordance with local regulations

#### Supplementary precautionary statements :

P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+350	IF ON SKIN: Gently wash with soap and water
P337+313	If eye irritation persists get medical advice/attention
P332+313	If skin irritation occurs: Get medical advice/attention
P305++351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so – continue rinsing.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Preparation:

Component	CAS-No	Wt%
Branched Polyalcohol with Ester Groups	8001-79-4	80-90
Modified Maleic Ester	8051-10-7	10-15
Trifunctional Alcohol	77-99-6	1.5-3
Glycol	2163-42-0	1.5-3
Polyacrylonitrile fibres	63908-52-1	0-3
Pyrogenic Silica	112945-52-5	0-2
Amine Catalyst	280-57-9	< 0.10
Polyurethane Catalyst	77-58-7	< 0.10

#### 4.1 Description of first aid measures:

##### General information:

Consult a physician for specific advice

##### Skin Contact:

Wash immediately with plenty of soap and water. Remove contaminated clothing. If irritation occurs consult a doctor.

##### Eye Contact:

Bathe the eye with running water for 15 minutes. Consult a doctor

##### Ingestion:

Wash out mouth with water. Consult a doctor.

##### Inhalation:

If irritation occurs, consult a doctor.

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

**SAFETY DATA SHEET****Product: GeoBondX UVR – Part A - Base**

Revision: 5/10/2016

Page 3 of 5

**SECTION 5: FIRE FIGHTING MEASURES****5.1 Extinguishing media:**

Extinguishing media:

Use foam, Carbon dioxide (CO<sub>2</sub>), Dry chemicals, sand, dolomite etc

Keep run-off water out of sewers and water sources. Dike for water control. Move container from fire area if it can be done without risk. Avoid water in straight hose stream; will scatter and spread fire. Use water SPRAY only to cool Containers! Do not put water on leaked material.

**5.2 Special hazards:**

Unusual Fire &amp; Explosion Hazards:

In combustion emits toxic fumes.

**5.3 Advice for fire fighters:**

Wear suitable respiratory protection when dealing with a fire.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions:**

Wear protective clothing and respiratory protection. Then follow as described in section 8 of this data sheet.

**6.2 Precautions to environment:**

Do not let the product or washing down water enter natural water courses or the sewers. Contain the spillage using bunding

**6.3 Spill clean up methods:**

Clean up personnel should use respiratory and/or liquid contact protection. Absorb with dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**6.4 Reference Sections:**

Section 8 and 13 of this data sheet.

**SECTION 7: HANDLING & STORAGE**

7.

Store in a cool, well ventilated area. Keep containers tightly closed.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8. Exposure controls:**

Respiratory protection:

Not required

Hand protection:

Protective gloves

Eye protection:

Safety glasses. Ensure eye bath is to hand

Skin protection:

Protective clothing

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

**SAFETY DATA SHEET****Product: GeoBondX UVR – Part A - Base**

Revision: 5/10/2016

Page 4 of 5

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties:**

These are indicative values only. Please refer to the product specification sheet.

Physical state:	Viscous liquid
Form/colour:	Brown
Odour:	Mild
Boiling Point (°C):	Not available
Specific Gravity (Water = 1):	0.99 g/cm <sup>3</sup>
Vapour Density (Air = 1):	Not available
Vapour Pressure:	<0.1
Evaporation Rate:	Negligible
Viscosity:	Viscous
Flash Point (°C) (Closed Cup):	>250
Flammability Limit (lower %):	Not available
Flammability Limit (upper %):	Not available

**SECTION 10: STABILITY AND REACTIVITY**

- 10.1 Stability:** Avoid: Heat, sparks, flames. Air and oxidizers. Stable at normal temperatures and pressures.
- 10.2 Possible hazardous reactions:** Strong oxidizing agents, strong acids
- 10.3 Hazardous decomposition products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on Toxicological Effects:**

Ingestion:	There may be soreness and redness of the mouth and throat.
Skin contact:	There may be mild irritation at site of contact
Inhalation:	No data available. No symptoms
Eye contact:	There may be irritation and redness

**SECTION 12: ECOLOGICAL INFORMATION****12. Toxicity**

- 12.1 Mobility:** Will be absorbed into the soil readily
- 12.2 Persistence and degradability:** Some substances in the preparation are not readily biodegradable.

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

**SAFETY DATA SHEET****Product: GeoBondX UVR – Part A - Base**

Revision: 5/10/2016

Page 5 of 5

12.3 Bio-accumulative potential: Contains potentially bio-accumulating substances.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods:** Waste is classified as hazardous waste. Disposal to a waste disposal site in accordance with the local waste disposal authority. Incinerate in suitable combustion chamber, with provision for removal of effluent gases by scrubber. Collect on absorbent material. Dike ahead of spill for later disposal.

**SECTION 14: TRANSPORT INFORMATION**

14.1 UN Number:	Not classified
14.2 SHIPPING NAME:	N/A
14.3 Transport Hazard Class (ADR):	Not classified
14.4 Packaging Group:	Not classified
IMDG:	
14.5 Emergency Action Code:	N/A
14.6 ICAD/IATA:	Not classified
14.7 TREM CARD:	N/A
14.8 Marine Pollutant:	No

**SECTION 15: REGULATION INFORMATION****15.1 Safety, health and environmental regulations**

UK Regulatory References:	Health and Safety at Work Act 1974
Statutory instruments:	Control of Substances Hazardous to Health
Guidance Notes:	Workplace Exposure Limits EH40
EU Legislation:	Dangerous Substance Directive 67/548/EEC
	Regulation (EC) No 1272/2008 CLP
	Regulation (EC) No 1907/2006 REACH

Reference should be made to Health and Safety at Work Act and the control of substances hazardous to Health Regulations.

**SECTION 16: OTHER INFORMATION****16.1. Hazard Statements in full:**

H303	May be harmful if swallowed
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H335	May cause respiratory irritation

Classification in line with CLP

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

## SAFETY DATA SHEET

### Product: GeoBondX UVR - Part B - Activator

Page 1 of 7

Issued: 5/10/2016

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

##### 1.1 Product Identifier:

Product Name: GeoBondX UVR - Part B - Activator

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

Identified uses: Two Pack Hybrid Urethane for Resin-Bound Aggregate Systems

##### 1.3 Details of supplier of the safety data sheet

Supplier: Adbruf Ltd  
 Gibbs Marsh Trading Estate  
 Stalbridge, Dorset, DT10 2RX  
 Tel: + 44 (0)1963 362640  
 Fax: + 44 (0)1963 363762  
 Email: sales@adbruf.com

Contact Person: Hassan Yousaf

##### 1.4 Emergency telephone number

Please contact: +44 (0)1963 362640

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification: (1272/2008/CE)

Physical & chemical hazards / Fire and explosion hazards:

Inhalation:

Harmful by inhalation. This product is a respiratory sensitiser: repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory sensitisation. The onset of the respiratory symptoms could be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of GeoBondX UVR Activator may develop in sensitised persons. Liquid is irritating to skin, may cause dermatitis. Repeated and/or prolonged contact May cause skin sensitisation.

Skin contact:

Vapour and liquid irritating to eyes.

Eye contact:

Liquid if ingested may cause vomiting, nausea, dizziness and unconsciousness.

Ingestion:

##### 2.2 Label elements:



Contains: Hexamethylene-1,6-diisocyanate homopolymer (100%)

Signal word:

**WARNING**

Hazard statements :

H317 May cause an allergic skin reaction  
 H332 Harmful if inhaled  
 H335 May cause respiratory irritation

**SAFETY DATA SHEET****Product: GeoBondX UVR - Part B - Activator**

Issued: 5/10/2016

**Precautionary statements:**

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection
P285	In case of inadequate ventilation wear respiratory protection
P302 + P352	IF ON SKIN wash with plenty of soap and water
P304 + P340	If INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing
P333+P313	If skin irritation or rash occurs, get medical advice/attention

**Supplementary precautionary statements :**

P102	Keep out of reach of children
P202	Do not handle until all safety precautions have been read and understood
P240	Ground bond container and receiving container
P262	Do not get in eyes, or skin or on clothing
P271	Use only outdoors or in a well ventilated area
P362	Take off contaminated clothing and wash before reuse
P405	Store locked up
P306 + 360 + 313	If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with local regulations
P403 + 233 + 235	Store in a well ventilated place. Keep container tightly closed Keep cool.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Preparation:**

Component	CAS-No	Wt%
Hexamethylene-1,6-diisocyanate homopolymer	28182-81-2	100

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures:**

<b>General information:</b>	Consult a physician for specific advice. Take off all contaminated clothing immediately.
<b>Inhalation:</b>	Move the exposed person to fresh air at once. Keep them warm, let them rest. If there is difficulty in breathing, medical advice is required.
<b>Skin contact:</b>	In case of skin contact, wash affected areas thoroughly with soap and plenty of water. Consult a doctor in the event of a skin reaction.
<b>Eye contact:</b>	Hold the eyes open and rinse with preferably lukewarm water for at least 10 minutes. Consult an ophthalmologist.

**SAFETY DATA SHEET****Product: GeoBondX UVR - Part B - Activator**

Issued: 5/10/2016

**Ingestion:** DO NOT induce vomiting. Get medical attention immediately.

**SECTION 5: FIRE FIGHTING MEASURES****5.1 Extinguishing media:**

Extinguishing media: Use foam, Carbon dioxide (CO<sub>2</sub>), Dry chemicals, sand, dolomite etc. High volume water jet is not suitable.

Keep run-off water out of sewers and water sources. Dike for water control. Move container from fire area if it can be done without risk. Avoid water in straight hose stream; will scatter and spread fire. Use water SPRAY only to cool containers! Do not put water on leaked material.

**5.2 Special hazards:**

Hazardous combustion: Carbon monoxide & dioxide, Nitrogen oxides, Isocyanate vapour, Hydrogen Cyanide (trace).

**5.3 Advice for fire fighters:**

Wear suitable respiratory protection (self-containing breathing apparatus) when dealing with a fire.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions:**

Wear protective clothing and respiratory protection. Then follow as described in Section 8 of this data sheet.

**6.2 Precautions to environment:**

Do not let the product or washing down water enter any natural water courses or the sewers.

**6.3 Spill clean up methods:**

Remove mechanically; cover the remainder with wet, absorbent material (e.g sawdust, chemical binder based on calcium silicate hydrate, sand). After approximately 1 hour transfer to waste container and do not seal (evolution of carbon dioxide!). Keep damp in a safe ventilated area for several days.

**6.4 Reference Sections:**

Section 8 and 13 of this data sheet.

**SECTION 7: HANDLING AND STORAGE****7.1 Usage precautions:**

Take precautionary measures against static discharges.  
Keep away from heat, sparks and open flame  
Eliminate all sources of ignition.

**7.2 Storage precautions:**

Avoid inhalation of vapours/spray and contact with skin and eyes.  
Provide good ventilation. May attack some plastics, rubber and coatings. Keep in cool, dry ventilated storage and closed containers. Ground container and transfer equipment to eliminate static electric sparks.

**7.3**

Use as described in section 1.2 of this data sheet



## SAFETY DATA SHEET

Page 4 of 7

### Product: GeoBondX UVR - Part B - Activator

Issued: 5/10/2016

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

##### 8.1 Exposure limit values:

Substance	CAS-No.	Basis	Type	Value	Ceiling Limit Value	Remarks
Hexamethylene- 1,6-dissocyanate homopolymer	28182-81-2	EH40 WEL	TWA	0.02 mg/m3		. measured as NCO
Hexamethylene- 1,6-dissocyanate homopolymer	28182-81-2	EH40 WEL	STEL	0.07 mg/m3		. measured as NCO

##### 8.2 Exposure controls:

Respiratory protection:	Keep below acceptance limit by use of local and general exhaust ventilation or use of an approved respirator: Organic vapour respirator with filter compliant with EN141:2000.
Eyes:	Approved solvent goggles – Contact lenses should not be worn when working with this chemical. Eye protection compliant with EN166.
Hand protection:	Approved protective gloves. Impervious gloves compliant with EN374:1994 Butyl Rubber – IIR: thickness >0.5mm; breakthrough time >480mins Fluorinated Rubber – FKM: thickness >0.4mm, breakthrough time >480mins Laminate glove – PE/EVAL/PE: breakthrough time >480mins Contaminated gloves should be disposed of immediately
Footwear:	Safety Footwear compliant with EN345:1 (Class S)/EN ISO 20345:2004, 2007, 2011.
Skin:	Approved solvent resistant overalls.
Other Protection:	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated.

**SAFETY DATA SHEET****Product: GeoBondX UVR - Part B – Activator****SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties:**

These are indicative values only. Please refer to the product specification sheet.

Physical state: Low viscosity liquid

Form/colour: Colourless

Odour: Odourless

Decomposition temperature ca. 250 °C

Ignition temperature: ca 440°C

Specific Gravity (Water = 1): 1.17g/cm<sup>3</sup>

Vapour Density (Air = 1): Heavier than air

Vapour Pressure: <0.007hPa (at 20°C)

Evaporation Rate: not established

Flash Point (°C) (Closed Cup): ca. 228 C°

Flammability Limit (lower %): n/a

Flammability Limit (upper %): n/a

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Stability:** Stable when stored and handled correctly.

**10.2** Possible hazardous reactions: Exothermic reaction with materials containing active Hydrogen groups e.g amine, alcohols. Reacts with water forming Carbon Dioxide; risk of bursting of closed vessels.

**10.3** Hazardous decomposition products: Toxic fumes evolved.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on Toxicological Effects:**

Ingestion: Liquid if ingested may cause vomiting, nausea, dizziness and unconsciousness.

Skin contact: Liquid is irritating to skin, may cause dermatitis.

Inhalation: Liquid and vapour is irritant. May cause drowsiness, nausea, dizziness and ultimately unconsciousness.

Eye contact: Rinse carefully and thoroughly with water. Seek medical advice.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

**12.2 Mobility:** The preparation will flow to an extent and should be contained if spilt. Do not allow to escape into waters, surface water or soil.

**SAFETY DATA SHEET**

Page 6 of 7

**Product: GeoBondX UVR - Part B - Activator**

Issued: 5/10/2016

**12.3 Persistence and Degradability:**

This product reacts with water forming an inert non biodegradable material

**12.4 Bio-accumulative potential:**

Contains potentially bio-accumulating substances. Water pollution class (WGK) – 1: slightly hazardous to water.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods:**

Waste is classified as hazardous waste. Disposal to a waste disposal site in Accordance with the local waste disposal authority.  
Incinerate in suitable combustion chamber, with provision for removal of effluent gases by scrubber.  
Collect on absorbent material. Dike ahead of spill for later disposal.

**SECTION 14: TRANSPORT INFORMATION****14.1** UN Number: n/a**14.2** SHIPPING NAME: RESIN SOLUTION**14.3** Transport Hazard Class (ADR): not dangerous goods**14.4** Packaging Group: n/a

IMDG: not dangerous goods

**14.5** Emergency Action Code: n/a**14.6** ICAD/IATA: not dangerous goods**14.7** TREM CARD: n/a**14.8** Marine Pollutant: n/a**SECTION 15: REGULATION INFORMATION****15.1 Safety, health and environmental regulations**

UK Regulatory References:

Health and Safety at Work Act 1974

Statutory instruments:

Control of Substances Hazardous to Health

Guidance Notes:

Workplace Exposure Limits EH40

EU Legislation:

Dangerous Substance Directive 67/548/EEC

Regulation (EC) No 1272/2008 CLP

Regulation (EC) No 1907/2006 REACH

Reference should be made to Health and Safety at Work Act and the control of substances hazardous to Health Regulations.

**SAFETY DATA SHEET**

Page 7 of 7

**Product: GeoBondX UVR - Part B - Activator**

Issued: 5/10/2016

**SECTION 16: OTHER INFORMATION****16.1. Hazard Statements in full:**

H302	Harmful if swallowed
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

Classification in line with CLP

In all areas where HDI aerosols and/or vapour concentrations are produced, exhaust ventilation must be provided in such a way that the OEL is not exceeded. Not readily biodegradable.

The information contained in the safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and has been compiled from data on raw materials. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.