SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Product Name: UPS 19000 RH THISTLEBOND STANDARD RESIN & HARDENER - ACTIVATOR
- Product Part Number: 19000 RH - ACTIVATOR

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

- Use of the substance/mixture: Polymer repair system

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Unique Polymer Systems
- Address of Supplier: Unit 19 Link Business Centre, Link Way, Worcestershire, WR14 1UQ, United Kingdom
- Telephone: +44 (0) 1531 636300
- Email: sales@uniquepolymersystems.com

1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1531 636300 OPEN HOURS 9am-5pm

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- CLP: Skin Sens. 1, Aquatic Acute 1, Acute Tox. 4, Skin Corr. 1A, Repr. 2, Aquatic Chronic 2

2.2 Label elements

GHS05 **GHS08** **GHS09**

- Signal Word: Danger

Hazard statements

H302 - Harmful if swallowed.
H361 - Suspected of damaging fertility or the unborn child if swallowed
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.
H400 - Very toxic to aquatic life.

Precautionary statements

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

SECTION 2: Hazards identification (....)

contact lenses, if present and easy to do. Continue rinsing.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

2.3 Other hazards

- Contains: Benzyl alcohol
  3-aminomethyl-3,5,5-trimethylcyclohexylamine
  trimethylhexane-1,6-diamine
  m - PHENYLENEBIS (METHYLAMINE)
  4-nonylphenol, branched

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical Name	CAS Number	EC Number	Concentration	Acute toxicity estimate	Specific Concentration Limits
benzyl alcohol	100-51-6	202-859-9	10-20%		
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	220-666-8	10-20%		
4-nonylphenol, branched	84852-15-3	284-325-5	10-20%		
4-tert-butylphenol	98-54-4	202-679-0	10-20%		
m -PHENYLENEBIS (METHYLAMINE)	1477-55-0	216-032-5	10-20%		
2-piperazin-1-ylethylamine	140-31-8	205-411-0	1-10%		
Paraformaldehyde, polimeric reaction products with 4tert-butylphenol, m-phenylenbis (methylamine) and trimethylhexane-1,6-diamine	2408029-04-7		1-10%		
trimethylhexane-1,6-diamine	25513-64-8	247-063-2	1-10%		
4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOPROPYLDIETHYLAMINE AND 2-PIPERAZIN-1-YLETHYLAMINE	68698-70-4	500-230-6	1-10%		
Phenol, styrenated	61788-44-1	262-975-0	1-10%		
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	202-013-9	1-10%		

Chemical Name	Categories	Symbols	H Statements
benzyl alcohol	Acute Tox. 4	GHS07	H332;H302
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	GHS05 GHS07	H312 H302 H314 H317 H412
4-nonylphenol, branched	Acute Tox. 4 Skin Corr. 1B Repr. 2 Aquatic Acute 1 Aquatic Chronic 1	GHS08 GHS05 GHS07 GHS09	H361fd H302 H314 H400 H410
4-tert-butylphenol	Skin Irrit. 2 Eye Dam. 1 Repr. 2	GHS08 GHS05	H361f H315 H318

SECTION 3: Composition/information on ingredients (....)

m -PHENYLENEBIS (METHYLAMINE)	Acute Tox. 4 Skin Corr. 1B Eye Dam. 1 Skin Sens. 1B Aquatic Chronic 3	GHS05, GHS07	H302, H314, H317, H318, H332, H412
2-piperazin- 1-ylethylamine	Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	GHS05 GHS07	H312 H302 H314 H317 H412
Paraformaldehyde, polimeric reaction products with 4tert-butylphenol, m- phenylenbis (methylamine) and trimethylhexane-1,6- diamine	Eye Dam. 1 Skin Sens. 1 Aquatic Chronic 3	GHS05, GHS07	H317, H318, H412
trimethylhexane- 1,6-diamine	Acute Tox. 4 Skin Corr. 1A Eye Dam. 1 Skin Sens. 1A	GHS05, GHS07	H302, H314, H317, H318
4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO- 2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOPROPYLDIETHYLAMINE AND 2-PIPERAZIN- 1-YLETHYLAMINE	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 1	GHS07, GHS09	H302, H315, H317, H319, H400, H410
Phenol, styrenated	Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	GHS07, GHS09	H315, H317, H411
2,4,6-tris(dimethylaminomethyl)phenol	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2	GHS07	H302 H315 H319

SECTION 4: First aid measures

4.1 Description of first aid measures

- Wash contaminated clothing before reuse.

Contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.

Contact with skin

IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If skin irritation or rash occurs: Get medical advice/attention.

Ingestion

IF SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
If vomiting occurs turn patient on side
When in doubt or symptoms persist, seek medical attention

Inhalation

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

SECTION 4: First aid measures (....)

If breathing is difficult, oxygen should be given by a trained person
Seek medical advice if necessary

4.2 Most important symptoms and effects, both acute and delayed

- May cause blistering of the skin
- May cause dizziness
- May cause nausea/vomiting
- May cause redness and irritation
- May cause wheeziness

4.3 Indication of any immediate medical attention and special treatment needed

- Call a POISON CENTER/doctor/physcian if symptoms continue.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions
- Do not use water jets

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure
- Carbon oxides may be formed

5.3 Advice for firefighters

- Wear protective gloves/protective clothing/eye protection/face protection.
- Toxic fumes may be formed
- Wear Breathing Apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Do not get in eyes, on skin, or on clothing.
- Evacuate the area and keep personnel upwind
- In case of leakage, eliminate all ignition sources.
- Wear protective clothing as per section 8

6.2 Environmental precautions

- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- Avoid release to the environment. Refer to special instructions/Safety data sheets
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

6.3 Methods and material for containment and cleaning up

- Absorb spillage in suitable inert material
- Collect as much as possible in clean container for reuse or disposal
- Seek expert advice for removal and disposal of all contaminated materials and wastes

6.4 Reference to other sections

- See Section 8
- See Section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Forms hazardous decomposition products
- Avoid contact with skin and eyes
- Dispose of contents/container to an authorised waste collection point
- Ensure adequate ventilation
- Wash contaminated clothing before reuse.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.

7.2 Conditions for safe storage, including any incompatibilities

- Store in a dry place. Store in a closed container.
- Keep container tightly closed, in a cool, well ventilated place

7.3 Specific end use(s)

- No information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

benzyl alcohol

DNEL (Industry; inhalational, short term systemic effects): 110 mg/m³
DNEL (Industry; inhalational, long term systemic effects): 22 mg/m³
DNEL (Industry; dermal, short term systemic effects): 40 mg/kg/day
DNEL (Industry; dermal, long term systemic effects): 8 mg/kg/day
DNEL (Consumer; inhalational, long term systemic effects): 5.4 mg/m³
DNEL (Consumer; inhalational, short term systemic effects): 27 mg/m³
DNEL (Consumer; dermal, long term systemic effects): 4 mg/kg/day
DNEL (Consumer; dermal, short term systemic effects): 20 mg/kg/day
DNEL (Consumer; oral, long term systemic effects): 4 mg/kg/day
DNEL (Consumer; oral, short term systemic effects): 20 mg/kg/day

m - PHENYLENEBIS (METHYLAMINE)

DNEL (Industry; dermal, long term systemic effects): 0.33 mg/kg/day
DNEL (Industry; inhalational, long term local effects): 0.2 mg/m³
DNEL (Industry; inhalational, long term systemic effects): 1.2 mg/m³

2,4,6-tris(dimethylaminomethyl)phenol

DNEL (Industry; inhalational, long term systemic effects): 0.31 mg/m³

8.2 Exposure controls


Gloves


Goggles

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Use personal protective equipment as required.
- In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus

SECTION 8: Exposure controls/personal protection (....)

- Wear suitable gloves: Chemical resistant, impervious gloves such as Nitrile, Neoprene and PVC complying with European Standard EN374
- Wear protective gloves/protective clothing/eye protection/face protection.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical state: Liquid
- Colour: Amber
- Odour: Slight smell of amine
- Melting point/Range: Not applicable
- Boiling Point/Range: >200°C
- Flammability: Not flammable
- pH: Not applicable
- Solubility in water: Immiscible with water
- Density: 1.1
- Flashpoint: >100°C

9.2 Other information

- No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

- Considered stable under normal conditions

10.2 Chemical stability

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- Keep away from heat

10.5 Incompatible materials

- Avoid contact with acids and alkalis
- Keep away from strong oxidizing substances

10.6 Hazardous decomposition products

- Decomposition products may include toxic fumes

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

benzyl alcohol

LD_{50} (oral, rat): 1,620 mg/kg

SECTION 11: Toxicological information (....)

LD_{50} (skin, rat): 2000 mg/kg
LD_{50} (oral, mouse): 1,040 mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

LD_{50} (oral, rat): 1,030 mg/kg
LD_{50} (skin, rat): >2,000 mg/kg
LD_{50} (dermal, rabbit): 1,840 mg/kg

m - PHENYLENEBIS (METHYLAMINE)

LD_{50} (oral, rat): 980 mg/kg
LD_{50} (oral, mouse): 1,180 mg/kg
LD_{50} (dermal, rabbit): 3100 mg/kg
LC_{50} (inhalation, rat): 1.34 dust/mist mgl

Phenol, styrenated

LD_{50} (oral, rat): >2,000 mg/kg
LD_{50} (skin, rat): >2,000 mg/kg

2,4,6-tris(dimethylaminomethyl)phenol

LD_{50} (oral, rat): 2,169 mg/kg

trimethylhexane-1,6-diamine

LD_{50} (oral, rat): 910 mg/kg

4-nonylphenol, branched

LD_{50} (oral, rat): 1210 mg/kg
LD_{50} (dermal, rabbit): >2000 mg/kg

2-piperazin-1-ylethylamine

LD_{50} (oral, rat): 2140 mg/kg
LD_{50} (dermal, rabbit): 866 mg/kg
LD_{50} (oral, rabbit): 2097 mg/kg

Skin corrosion/irritation

Causes redness and irritation
Causes allergic reaction in susceptible people

Serious eye damage/irritation

Can cause damage to the eyes
May cause burning sensation
Prolonged skin or eye contact may cause chemical burns

Respiratory or skin sensitisation

May cause shortness of breath

Germ cell mutagenicity

No experimental data available

Carcinogenicity

No experimental data available

Reproductive toxicity

SECTION 11: Toxicological information (....)

No information available

STOT (specific target organ toxicity) - single exposure

No information available

STOT (specific target organ toxicity) - repeated exposure

No information available but must be considered harmful

Aspiration hazard

No experimental data available

11.2 Information on other hazards

- No information available

SECTION 12: Ecological information

12.1 Toxicity

Substances

Chemical Name	IC_{50}(algae)	EC_{50}(daphnia)	LC_{50}(fish)
benzyl alcohol	770 mg/l (72 hr)	230 mg/l (48 hr)	460 mg/l (96 hr)
3-aminomethyl-3,5,5-trimethylcyclohexylamine		23 mg/l (48 hr)	110 mg/l (96 hr)
m-PHENYLENEBIS (METHYLAMINE)		15.2 mg/l (48 hr)	75 mg/l (96 hr)
Phenol, styrenated		4.6 mg/l (48 hr)	
2,4,6-tris(dimethylaminomethyl)phenol			175 mg/l (96 hr)
4-tert-butylphenol		3.9 mg/l (48 hr)	5.1 mg/l (96 hr)
4-nonylphenol, branched		0.085 mg/l (48 hr)	0.128 mg/l (96 hr)
2-piperazin-1-ylethylamine		58 mg/l (48 hr)	2190 mg/l (96 hr)

12.2 Persistence and degradability

- Biodegradable

12.3 Bioaccumulative potential

- Bioaccumulation is insignificant

12.4 Mobility in soil

- This substance will leach into the soil

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII

12.6 Endocrine disrupting properties

- No information available

12.7 Other adverse effects

- No information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

SECTION 13: Disposal considerations (....)

- Dispose of container to a hazardous or special waste collection point

SECTION 14: Transport information

Corrosive

ENVIRONMENTALLY HAZARDOUS

14.1 UN number or ID number

- UN No.: 2735

14.2 UN proper shipping name

- Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S.
- Proper Shipping Name: 3-aminomethyl-3,5,5-trimethylcyclohexylamine

14.3 Transport hazard class(es)

- Hazard Class: 8

14.4 Packing group

- Packing Group: II

14.5 Environmental hazards

- Marine Pollutant

14.6 Special precautions for user

- Contains: 3-aminomethyl-3,5,5-trimethylcyclohexylamine
  4-nonylphenol, branched

14.7 Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

- Water Hazard Class (Company): 3

Substances

Chemical Name	Water Hazard Class (Official)	Water Hazard Class (Company)
benzyl alcohol	1	
3-aminomethyl-3,5,5-trimethylcyclohexylamine	1	
4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOPROPYLDIETHYLAMINE AND 2-PIPERAZIN-1-YLETHYLAMINE	Not hazardous	
m-PHENYLENEBIS (METHYLAMINE)	Not hazardous	

SECTION 15: Regulatory information (....)

Phenol, styrenated	Not hazardous	
2,4,6-tris(dimethylaminomethyl)phenol		Not Classified
4-tert-butylphenol	2	
Paraformaldehyde, polimeric reaction products with 4tert-butylphenol, m-phenylenbis (methylamine) and trimethylhexane-1,6-diamine	Not hazardous	
trimethylhexane-1,6-diamine	Not hazardous	
4-nonylphenol, branched	3	
2-piperazin-1-ylethylamine	2	

15.2 Chemical safety assessment

SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H332: Harmful if inhaled. H361f: Suspected of damaging fertility. H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects.

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

--- end of safety datasheet ---