EU SAFETY DATA SHEET
(IN ACCORDANCE WITH 91/155/EEC AS AMENDED)

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

1.1 Identification of the Substance or Preparation
AQUA-ZORB 45

1.2 Use of the substance/preparation
Amenity Turf wetting agent

1.3 Company/Undertaking Identification
Manufacturer: Turftech International Limited
5 Cable Court
Pittman Way
Fulwood
Preston
Lancashire PR2 9YW
England

Contact : David Greenwood
Telephone : +44 (0) 1772 704433
Fax : +44 (0) 1772 704477

1.4 Emergency Telephone Number
07836 726201 (mobile)

2. COMPOSITION/INFORMATION ON INGREDIENTS
The preparation is a 50% aqueous solution, which contains the following components:

Component 1 – Succinate derivative

Ingredient	EC number	CAS number	% present in preparation	EU classification
Succinate derivative	confidential	confidential	< 10	Xn, R22, R36/38 – self classification
Aliphatic alcohol	confidential	confidential	< 1	Not required for non-dangerous preparation
Aliphatic alcohol	confidential	confidential	< 1	Not required for non dangerous preparation
Water	2317912	7732-18-5	remainder	None

Component 2 – Block co-polymer

Ingredient	EC number	CAS number	% present in preparation	EU classification
Block copolymer	Exempt Polymer	confidential	< 50	None

3. HAZARDS IDENTIFICATION
The preparation is not classified based on the components therein according to the rules of 1999/45/EC. Hence it is not considered to present a hazard to man and the environment.

4. FIRST-AID MEASURES

Exposure by Inhalation: Remove patient to fresh air and provide warmth and rest. If necessary seek medical advice.

Exposure by Skin and Eye Contact: In case of contact with skin, wash immediately with soap and large quantities of water. If contact with eyes occurs, rinse immediately with plenty of water until irritation subsides. If necessary seek medical advice.

Exposure by Ingestion: Do not induce vomiting. Drink plenty of water and if necessary seek medical advice.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, powder, CO_2, foam or sand.

Extinguishing Media not to be Used: None specified.

Specific Exposure Hazards: The substance may evolve noxious fumes (such as oxides of carbon) if involved in a fire.

Protective Equipment for Firefighters: Full protective clothing and self-contained breathing apparatus must be worn.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Evacuate personnel from immediate vicinity. Wear eye protection (e.g. goggles), chemical resistant gloves, protective clothing (e.g. an impervious apron) and respiratory protection such as a ventilated hood or cartridge mask. Refer to section 8.

Environmental Precautions: Avoid release to drains.

Methods for Cleaning Up: Absorb spillages with a suitable inert material (*e.g.* sand or soil). Carefully transfer the spillage to waste containers, or use a sealed industrial vacuum machine. Containers filled with waste material must be labelled in the same way as the original containers. Clean the spillage area with water and detergent. Do not direct washings to the open sewer. Dispose of waste material by incineration (see section 13).

7. HANDLING AND STORAGE

7.1 Handling

The substance should be handled under conditions of good industrial hygiene and in conformity with any local regulations in order to avoid any unnecessary exposure.

Technical Measures: Engineering controls such as LEV are necessary to reduce exposure to the substance.

Specific Requirements: None specified.

7.2 Storage

Specific Design for Storage Rooms or Vessels: None.

Incompatible Materials: None known

Conditions of Storage: Store in a cool, dry, well-ventilated area, protected from moisture, sources of ignition and direct sunlight. Keep containers tightly closed when not in use.

Quantity Limits: None.

Packaging Materials: Polypropylene containers

7.3 Specific use(s) Golf course wetting agent

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values None assigned

8.2 Exposure controls The provision of personal protective equipment and the need to provide engineering control measures should be decided upon by the user as part of a formal exposure risk assessment. Measures described below should be considered.

8.2.1 Occupational exposure controls:

8.2.1.1 Respiratory protection: Based upon current information and in the absence of occupational exposure limits the use of respiratory equipment such as a cartridge mask is recommended.

8.2.1.2 Hand Protection: Chemical protective gloves eg. to Standard EN374 should be provided. Usage periods should not exceed the breakthrough times for the chemical stated by the manufacturer of the glove.

8.2.1.3 Eye protection: Eye protection should be used when handling the substance. The protection should be capable of giving chemical protection as classified in EN166.

8.2.1.4 Skin protection: Handling of the material should be done wearing chemical protective clothing suitable for protection against the chemical as classified by Standard EN368.

8.2.2 Environmental exposure controls: None specified

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Appearance:	Clear liquid
Odour:	Characteristic odour
pH:	

No other available physico-chemical data on the preparation itself

9.2 Important health, safety and environmental information

	Succinate	**Block Copolymer**
Boiling Point/Boiling Range:	No data	> 200°C
Flash Point:	36°C (Closed cup)	> 150°C
Flammability (Solid, Gas):	Not applicable	Not applicable

Explosive Properties:	No data	No data
Oxidising Properties:	No data	No data
Vapour Pressure:	No data	No data
Relative Density:	1.13 (Specific gravity)	1.02
Solubility - Water solubility:	Completely soluble	Moderate
- Fat solubility:	No data	No data
Partition coefficient: n-octanol/water:	No data	No data
Viscosity:	No data	330 – 370 at 23°C

9.3 Other information None

10. STABILITY AND REACTIVITY

10.1 Conditions to Avoid None known.

10.2 Materials to Avoid None known

10.3 Hazardous Decomposition Products Oxides of carbon

11. TOXICOLOGICAL INFORMATION

	Succinate	**Block Copolymer**
Acute Toxicity		
Oral:	LD_{50} =1750 mg/kg in the rat	> 2000 mg/kg in the rat
Dermal:	LD_{50} = 5000 mg/kg in rabbit	No data
Inhalation:	LC50 (4hr) > 20 mg/l in the rat	No data
Irritation		
Skin:	Irritant in rabbits	No data
Eye:	Irritant in rabbits	Slight irritant
Sensitisation		
Dermal: Not	Sensitising	No data
Patch Test:	Not sensitising	No data
Inhalation:	No data	No data
Repeated dose toxicity	No data	No data
Genetic toxicology	No known genotoxic effects	No data

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Succinate	**Block copolymer**
Acute Fish toxicity (bluegill sunfish): 96 hr LC50 > 1000mg/l	No data available
Acute Fish toxicity (rainbow trout): LC50 = 1200 mg/l	

12.2 Mobility

This preparation will be soluble in water and has low volatility and so is likely to remain in the water compartment.

12.3 Persistence and degradability

Succinate	**Block copolymer**
28 day Closed Bottle Test: 16.7% degradation	Hydrolytically stable
28 day OECD Modified Screening Test: 40.3% degradation	

12.4 Bioaccumulative potential

The substances contained in the preparation are not considered to be bioaccumulative. Biomagnification will therefore not occur.

12.5 Other adverse effects

There is no ozone depletion, photochemical ozone creation or global warming potential.

13. DISPOSAL CONSIDERATIONS

Waste from Residues:	Dispose of by incineration in accordance with local regulations. Stack gases from incineration should be scrubbed.
Contaminated Packaging:	Dispose of by incineration in accordance with local regulations.

14. TRANSPORT INFORMATION

UN classification number:	None
International Regulations:	
land	None
sea	None
air	None
Local Regulations	Any relevant local regulations concerning transport should be observed.

15. REGULATORY INFORMATION

EC Regulations:	The preparation is not provisionally classified as "dangerous" according to the requirements of the Dangerous Preparations Directive (1999/45/EC).
Classification:	None
Symbols:	None
R Phrases:	None
S Phrases:	None

16. OTHER INFORMATION

The information and recommendations contained herein are based upon available test data for the components of the preparation.