Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

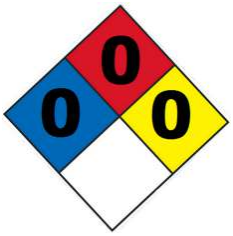
PRODUCT NAME

AquaBoost AG30

STATEMENT OF HAZARDOUS NATURE

Not considered a hazardous substance according to OSHA 29 CFR 1910.1200

NFPA



SUPPLIER

Company:
Advanced Water Technologies, LLC
Address:
7650 East Redfield Road., Suite D-7
Scottsdale, AZ 85260

Telephone 1-888-452-7117

PRODUCT USE

Commercial horticultural / agricultural soil penetrant and water retention. The use of the product involves significant dilution with water (500 - 1000:1).

SYNONYMS

Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS	RN	%

No hazardous ingredients present.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
RISK
POTENTIAL HEALTH EFFECTS ACUTE HEALTH EFFECTS

SWALLOWED
Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident.
Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
Considered an unlikely route of entry in commercial/industrial environments.

EYE
Although the material is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterized by tearing or conjunctivital redness (as with windburn).
The liquid may produce eye discomfort causing smarting, pain and redness.

SKIN
The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Irritation and skin reactions are possible with sensitive skin.

INHALED
The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS
Primary route of exposure is usually by skin contact and eye contact. As with any chemical product, contact with unprotected bare skin; inhalation of vapor, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

Section 4 - FIRST AID MEASURES

SWALLOWED
If swallowed do NOT induce vomiting.
If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully.
Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
Seek medical advice.

EYE
If this product comes in contact with the eyes:
Wash out immediately with fresh running water.
Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
If pain persists or recurs seek medical attention.
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
If skin contact occurs:
Immediately remove all contaminated clothing, including footwear
Flush skin and hair with running water (and soap if available).
Seek medical attention in event of irritation.

INHALED
If fumes or combustion products are inhaled remove from contaminated area.
Lay patient down. Keep warm and rested.
Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
Transport to hospital, or doctor.

NOTES TO PHYSICIAN
Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

Flash Point (F): Not applicable
Lower Explosive Limit (%): Not applicable
Upper Explosive Limit (%): Not applicable
Autoignition Temp (F): Not applicable

EXTINGUISHING MEDIA
There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
Alert Emergency Responders and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves for fire only.
Prevent, by any means available, spillage from entering drains or water course.
Use fire fighting procedures suitable for surrounding area.
Do not approach containers suspected to be hot.
Cool fire exposed containers with water spray from a protected location.
If safe to do so, remove containers from path of fire.
Equipment should be thoroughly decontaminated after use.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS
Non combustible.
Not considered to be a significant fire risk.
Expansion or decomposition on heating may lead to violent rupture of containers.
Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
May emit acrid smoke.
Other decomposition products include sulfur oxides (SOx).

FIRE INCOMPATIBILITY
None known.

PERSONAL PROTECTION
Glasses:
Chemical goggles. Gloves:
When handling larger quantities:
PVC chemical resistant type. Respirator:

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
Slippery when spilt.
Clean up all spills immediately. Avoid contact with skin and eyes.
Control personal contact by using protective equipment.
Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up.

MAJOR SPILLS
Slippery when spilt. Minor hazard.
Clear area of personnel.
Alert Emergency Responders and tell them location and nature of hazard.
Control personal contact by using protective equipment as required.

Prevent spillage from entering drains or water ways.
Contain spill with sand, earth or vermiculite.
Collect recoverable product into labeled containers for recycling.
Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
Wash area and prevent runoff into drains or waterways.

If contamination of drains or waterways occurs, advise emergency services.

ACUTE EXPOSURE GUIDELINE LEVELS (AEGL) (in ppm)

AEGL 1: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.
AEGL 2: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could
experience irreversible or other serious, long-lasting adverse health effects
or an impaired ability to escape.
AEGL 3: The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could
experience life-threatening health effects or death.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
Limit all unnecessary personal contact.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Avoid contact with incompatible materials.
When handling, DO NOT eat, drink or smoke.
Keep containers securely sealed when not in use.
Avoid physical damage to containers.
Always wash hands with soap and water after handling.
Work clothes should be laundered separately.
Use good occupational work practice.
Observe manufacturer's storing and handling recommendations.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

RECOMMENDED STORAGE METHODS
Plastic container.
Check that containers are clearly labeled. Packaging as recommended by manufacturer.

STORAGE REQUIREMENTS
Store in original containers.
Keep containers securely sealed.
Store in a cool, dry, well-ventilated area.
Store away from incompatible materials and foodstuff containers.
Protect containers against physical damage and check regularly for leaks.
Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS
None assigned. Refer to individual constituents.

PERSONAL PROTECTION

EYE
Safety glasses with side shields; or as required,
Chemical goggles.
Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET
No special equipment needed when handling small quantities. OTHERWISE: Wear chemical protective gloves, eg. PVC.
Safety footwear may be required.

OTHER
Overalls.
Eyewash unit.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
Use appropriate NIOSH-certified respirator based on informed professional judgement. In conditions where no reasonable estimate of exposure can be made, assume the exposure is in a concentration IDLH and use NIOSH-certified full face pressure demand SCBA with a minimum service life of 30 minutes, or a combination full facepiece pressure demand SAR with auxiliary self-contained air supply. Respirators provided only for escape from IDLH atmospheres shall be
NIOSH-certified for escape from the atmosphere in which they will be used.

ENGINEERING CONTROLS
None required when handling small quantities. Use in a well-ventilated area.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES
Liquid.
Mixes with water.

Molecular Weight: Not applicable
Melting Range (C): Not available
Solubility in water (g/L): Miscible
pH (1% solution): 6.5 – 6.7
Volatile Component (%vol): Not available
Relative Vapor Density (air=1): Not available
Lower Explosive Limit (%): Not applicable
Autoignition Temp (C): Not applicable
State: Liquid

Boiling Range (C): 100
Specific Gravity (water=1): 1.0
pH (as supplied): 7.4 approx.
Vapor Pressure (kPa): Not applicable
Evaporation Rate: Not available
Flash Point (C): Not applicable
Upper Explosive Limit (%): Not applicable
Decomposition Temp (°C): Not available

APPEARANCE
Clear greenish liquid; mixes with water.

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
Product is considered stable and hazardous polymerization will not occur.

STORAGE INCOMPATIBILITY
Avoid storage with oxidizers.

Section 11 - TOXICOLOGICAL INFORMATION

AquaBoost AG30
Refer Section 12. Refer to individual constituents.
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity
AquaBoost AG 30 has no systemic toxicity to aquatic organisms or micro-organisms

Persistence/Degradability
Non-degraded anionic polyacrylamide has been shown to be recalcitrant to microbial degradation. This is probably related to the extremely high molecular weight, which renders microbial attack very difficult. However, once the polymer has been degraded through photolysis (i.e. the action of UV light), and the macromolecule broken down onto oligomers, it becomes bioavailable and is biomineralized.
Mobility
Not available
Bioaccumulative Potential
Anionic polyacrylamide has no potential to bioaccumulate being completely soluble in water (only limited by viscosity) and insoluble in octanol.
Environ. Protection
When diluted according to manufacturer's recommendations, this product poses no threat to the environment if it enters drains, waterways or sewers.

Acute Toxicity – Fish
LC50 (Brachydanio rerio) 96 hours: 178 – 357 mg/L
Test F242:OECD 203/GLP/report 21/12/1995
Acute Toxicity – Algae
EC50A (I) /Chlorella vulgaris/ 96 hours: > 1,000 mg/L
EC50µ (I) /Chlorella vulgaris/ 96 hours: > 1,000 mg/L
No Observed Effect Concentration (NOEC) : 708 mg/L
Test F244:OECD 201/GLP/report 21/12/1995
Acute Toxicity – Bacteria
EC10/Pseudomas putida/ 18 hours: 127 mg/L
EC50/Pseudomas putida/ 18 hours: 892 mg/L
Test F245:OECD 301F, DIN 38412-27, ISO 7027/GLP/report 21/12/1995

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Instructions
All waste must be handled in accordance with local, state and federal regulations.
Recycle wherever possible or consult manufacturer for recycling options.
Consult Waste Management Authority for disposal.
Recycle containers if possible, or dispose of in an authorized landfill.

Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN,IATA,IMDG

Section 15 - REGULATORY INFORMATION

RISK
None under normal operating conditions
REGULATIONS

Section 16 - OTHER INFORMATION

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Emergency contact information:
United States of America

Mr. Matt Stegemiller
Advanced Water Technologies LLC
7650 East Redfield Road,
Suite D-7,
Scottsdale, Arizona 85260
Telephone: (925) 285-9789