

MATERIAL SAFETY DATA SHEET	FUTUREGARDEN, INC	Updated 12/01/06
-----------------------------------	--------------------------	-------------------------

INTERNATIONAL TARIFF CODE FOR PROCESSED LIGNITE – 2702.10.00.00
--

SECTION I – COMPANY AND PRODUCT INFORMATION

MANUFACTURER'S NAME Futuregarden, Inc	EMERGENCY TEL. NO. 516-420-0884	CHEMTREC: (800) 424-9300
--	------------------------------------	-----------------------------

ADDRESS (number, street, city, state, zip code) 59 Central Avenue Farmingdale, NY 11735, USA

CHEMICAL NAME AND SYNONYMS Naturally occurring peat & brown bituminous coal. Processed lignite.	TRADE NAME (S) AND SYNONYMS Organic Activator – Liquid Humic Acid
---	--

CHEMICAL CHARACTERIZATION: Humic acid	CAS# 1415-93-6	CONTENT 12%
--	-------------------	----------------

SECTION II – HAZARDOUS IDENTIFICATION

HAZARDS DESCRIPTION:	Not applicable
----------------------	----------------

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS OR GASES – NONE KNOWN
--

SECTION III – PHYSICAL DATA

BOILING POINT	100° C	SPECIFIC GRAVITY (H ₂ O = 1)	1.02
VAPOR PRESSURE (mm Hg.)	N/A	FLAMMABILITY	Not flammable
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE	1.0 atm
SOLUBILITY	100%	pH	7.5 - 8.5
ACTIVITY (Soluble Humic Acids)	12%	ODOR	Almost odorless
APPEARANCE / FORM	Dark brown to black liquid		

SECTION IV – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA Water, carbon dioxide, extinguishing powder.
SPECIAL FIRE FIGHTING PROCEEDURES Wear self-contained respirator and fully protective suit.
UNUSUAL FIRE AND EXPLOSION HAZARDS None known

SECTION V – FIRST AID MEASURES

AFTER INHALATION: Supply fresh air. If required, provide artificial respiration and seek medical advice. No toxic effects are known. Wash with water and soak and rinse thoroughly.
AFTER EYE CONTACT: Rinse opened eye for several minutes under running water. No eye reaction effects are known. Seek medical advice if irritation persists.
AFTER SWALLOWING: No detrimental effects of ingestion are known. Seek medical advice if discomfort arises.
EFFECTS OF OVEREXPOSURE No exposure limits have been determined and no particular reactions to this product have been reported. If combined with other products, use their MSDS information.

SECTION VI – REACTIVITY DATA

STABILITY Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	
MATERIALS TO AVOID - Oxidizing agents	INCOMPATIBILITY - Avoid mixing with materials that have a pH lower than 4.0
HAZARDOUS DECOMPOSITION PRODUCTS Under extreme temperatures, CO, CO ₂ , SO ₂ , hydrocarbons (including coal tar pitch and unknowns may be detected)	
HAZARDOUS POLYMERIZATION Will Occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>	

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED Contain spill with suitable absorbent material. Wear an approved respirator if necessary. Avoid splashing the liquid as it will permanently stain most surfaces.
WASTE DISPOSAL METHOD Follow Federal, State, or Local regulations for solid waste

SECTION VIII – HANDLING PRECAUTIONS

RESPIRATORY PROTECTION Use appropriate respiratory protection for airborne mist based on consideration of airborne workplace concentration and duration of exposure.
VENTILATION Use local exhaust for ventilation; no mechanical or special exhaust is necessary.
PROTECTIVE GLOVES Recommended as a precautionary measure only.

EYE PROTECTION
Safety goggles or glasses are recommended

OTHER PROTECTIVE EQUIPMENT
As appropriate for the work environment. Dusty or dirty clothing should be laundered after use. Product may stain clothes.

SECTION IX – PHYSICAL CHARACTERISTICS

Organic carbon (active carbon)		7.7%	
Spectrum Analysis Data:			
Element	%	Element	ppm
Ca	0.14	Mn	11
Mg	0.036	Cu	2.2
Fe	0.053	Zn	4.7
K	0.38		
Na	1.2		

SECTION X – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: one the skin, some irritation may occur. One the eye, some irritation may occur. Sensitizing: no sensitizing effect known

SUBACUTE TO CHRONIC TOXICITY:
Other than potential irritation above, no information on illness or injury is known.

OTHER TOXICOLOGICAL INFORMATION:
No classification data on the carcinogenic properties of this material is available.

SECTION XI – ECOLOGICAL INFORMATION

General Information:	Humic acids are very active substances. Excessive applications to the plant or soil could inhibit plant growth for an undetermined length of time. No aquatic dangers are known.
-----------------------------	--

SECTION XII – TRANSPORTATION INFORMATION

Not a hazardous material for transportation

The information contained herein is based upon knowledge believed to be reliable, but neither Futuregarden, Inc., nor its affiliates, makes any warranties, expressed or implied, as to the accuracy or adequacy thereof. Nothing herein excuses the recipient hereof from such duties as shall be imposed by the Occupational Safety & Health Act of 1970 and regulations issued pursuant thereof.