

MATERIAL SAFETY DATA SHEET	TERAVITA LIMITED	PEAT & BROWN BITUMINOUS COAL
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INTERNATIONAL TARIFF CODE FOR PROCESSED LIGNITE – 2702.10.00.00

SECTION I

MANUFACTURER'S NAME TeraVita Limited	EMERGENCY TEL. NO. 717-291-7251
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ADDRESS (number, street, city, state, zip code) 128 Weaver Road, Lancaster, PA 17603 USA

CHEMICAL NAME AND SYNONYMS Naturally occurring peat & brown bituminous coal. Processed lignite.	TRADE NAME (S) AND SYNONYMS SUPER HUMATE LIQUID – LC12 + 7
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CHEMICAL FAMILY Crude humic acids	FORMULA
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SECTION II – HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, SOLVENTS	ALLOYS & METAL COATINGS
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	% TLV (UNITS)		% TLV (UNITS)
PIGMENTS	0	BASE METAL	0
CATALYST	0	ALLOYS	0
SOLVENTS	0	METALLIC COATINGS	0
ADDITIVES	0	FILLER METAL CORE FLUX	0
OTHERS	0	OTHERS	0

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS OR GASES – **NONE**

SECTION III – PHYSICAL DATA

BOILING POINT (F) (in liquid form)	212°	SPECIFIC GRAVITY (H ₂ O = 1)	1.02
VAPOR PRESSURE (mm Hg.)	N/A	% VOLATILE BY VOLUME	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE	1.0 atm
MOISTURE CONTENT	86 – 91 %	pH	8,0 - 8,5
ACTIVITY LEVEL	9 –14 %	SOLUBILITY IN WATER	100 %
APPEARANCE	Dark brown to black liquid	ODOR	Almost odorless

SECTION IV – FIRE AND EXPLOSIVE HAZARD DATA

FLASH POINT (Method Used) 400° F (Cleveland Cup Method)	FLAMMABLE LIMITS (LFL and UFL) Not determined
EXTINGUISHING MEDIA Water, fog, foam, rock dust	
SPECIAL FIRE FIGHTING PROCEEDURES Do not stir up dust with hose stream	
UNUSUAL FIRE AND EXPLOSION HAZARDS May explode if dust is suspended in air and ignition source is present. Powder/Granules burn similar to coal or wood.	

SECTION V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Not determined
EFFECTS OF OVEREXPOSURE A single exposure will not result in serious adverse effects. Avoid uncontrolled inhalation of dust. If combined with other products, use their MSDS information.
EMERGENCY AND FIRST AID PROCEEDURES Flush eyes immediately with water. If irritation occurs, contact a physician immediately. Remove to fresh air if inhaled. No first aid required for skin contact.

SECTION VI – REACTIVITY DATA

STABILITY Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	
CONDITIONS TO AVOID - None known	INCOMPATIBILITY - Avoid mixing with materials that have a pH lower than 4.0
HAZARDOUS DECOMPOSITION PRODUCTS When burned, 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 PROCEEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED Vacuum if possible to avoid generating airborne dust. Avoid breathing dust. Wear an approved respirator. Avoid adding water to the spill as the material may become slippery when wet.
WASTE DISPOSAL METHOD Follow Federal, State, or Local regulations for solid waste

SECTION VIII – HANDLING PRECAUTIONS

RESPIRATORY PROTECTION Use appropriate respiratory protection for airborne particulate 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.

SECTION IX – PHYSICAL CHARACTERISTICS

Solubility, %	100
pH	8,0 – 8,5
Content of water soluble Chelates of Humic Acids with microelements, %	
Fe - 2,37	Mn – 2,37
Cu -1,58	B – 1,80
Zn - 1,46	Co – 0,04
Mo – 0,04	Total: 9,66

SECTION X – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Use good housekeeping practices. Use normal precautions against container breakage or spilling of bulk material.
OTHER PRECAUTIONS
The information contained herein is based upon knowledge believed to be reliable, but neither TeraVita Limited, nor its affiliates, makes any warranties, expressed or implied, as to the accuracy or adequacy thereof. Nothing herein excuses the percipient hereof from such duties as shall be imposed by the Occupational Safety & Health Act of 1970 and regulations issued pursuant thereof.