



Louisville Green Material Safety Data

Section 1. Product and Company Information

Product Name:	Louisville Green
Product Description:	Heat Dried Biosolids
Manufacturer:	Louisville and Jefferson County Metropolitan Sewer District 4522 Algonquin Parkway Louisville, KY 40211
Telephone Number:	(502) 540-6774
Emergency Contact:	Chemtrec (800) 424-9300

Section 2. Composition and Information on Ingredients

Name	CAS Number	% of Weight	Exposure Limits: TLV/PEL
Solids from activated sewage biosolids		93-96	Total Dust 15mg/m ³ (PEL)/10mg/ m ³ (TLV)
Water	7732-18-5	Balance*	Respirable Dust 5mg/m ³ (PEL and TLV)

*Trace metals can be detected in the finished product typically in quantities less than 1.0%, most less than 0.1%.

Section 3. Hazards Identification

Emergency Overview May form explosive dust-air mixtures.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes thoroughly with water, remove any contact lenses, and continue to flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact	In keeping with good hygienic practices, wash exposed areas thoroughly with soap and water.
Inhalation	If breathing difficulty should occur, remove to fresh air. If symptoms of illness continue, seek medical attention.
Ingestion	If ingestion occurs, seek medical attention.

Section 5. Fire and Explosion Data

Flammability	Does not sustain combustion when exposed to 1000° C flame as verified by SW-846 Method 1030 analysis. Bulk wetted material may generate heat upon storage causing a potential for fire.
Flash Point	Minimum Ignition Energy; 100-300mJ Minimum Ignition Temperature; 540° - 560°C Minimum Explosive Concentration; 40 - 50 G/m ³
NFPA Rating	Health - 1 Fire - 1 Reactivity - 0
Explosive Limits in Air	LEL: ND UEL: ND
Unusual Fire and Explosion Hazards	Do not breathe fumes. At high temperatures, this type of fertilizer can give off undefined fumes fine. Dust dispersion in air may form an explosive mixture. Do not spray with water. Bulk wetted material may generate heat upon storage causing a potential for fire.
Fire Fighting Media and Instructions	Firefighters should wear normal fire protection gear. Prevent runoff from entering drains, sewers, or any body of water. Becomes slippery when wet. Do not breathe fumes.

Section 6. Accidental Release Measures

Accidental Spill	Sweep, vacuum or shovel material into labeled containers. If possible, reuse product. Ensure that disposal is in compliance with local, state, or federal regulations
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Section 7. Handling and Storage

Handling	Avoid breathing dust. Wash hands after handling.
Storage	Keep dry. Store in a cool, dry area out of reach of children and animals. Bulk wetted material may generate heat upon storage. For storage recommendations, refer to the EPA's Guide to Field Storage of Biosolids. This document can be found on the EPA's website at http://www.epa.gov/owm/mtb/biosolids/fsguide/index.htm

Section 8. Exposure Control/Personal Protection

Ventilation Requirements	None required under normal use conditions. For occupational situations, use sufficient ventilation to keep dust levels below their Threshold Limit Values (See Section #2).
Eye Protection	Wear eye goggle/safety glasses if product may be expected to come in contact with eyes.
Skin Protection	Skin protection is suggested for outdoor applications and emergency response.
Respiratory Protection	Self-contained breathing apparatus (SCBA) should be used by emergency responders to avoid breathing dust and fumes during a fire situation. In normal conditions, half face or full face respirators with HEPA cartridges is suggested when dust levels exceed the Threshold Limit Values.
Other Protection	Wear appropriate safety equipment for any hazards encountered. Product by itself presents no specific hazards
Work/Hygienic Practices	Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

Section 9. Physical and Chemical Properties

Description	Pellets, Fertilizer
Appearance	Dark free flowing granules
Odor	Earthy
pH	Slightly acidic
Boiling Point	Not Available
Specific Gravity	30-55 lbs./ft ³

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions of Instability	Keep away from heat, sparks, open flame, moisture and high humidity.
Incompatibility with Various Substances	Strong acids, alkalis, and oxidizing agents.
Hazardous Decomposition Products	Expected to emit the same types of toxic smoke as would be released during combustion of other organic materials.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Eye Contact	May cause eye irritation.
Skin Contact	ND
Inhalation	May cause nasal and throat irritation.
Ingestion	Ingestion is unlikely through the normal anticipated use of this product.
Carcinogenicity	Not listed as carcinogenic by OSHA , NTP, or IARC.

US EPA 40 CFR Part 503 (Biosolids Rule)

Under the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has conducted extensive screening to determine likely pollutants in sewage sludge, a/k/a biosolids. EPA's National Survey of Biosolids analyzed for a total of 412 pollutants, including every organic, pesticide, dibenzofuran, dioxin and PCB analyte for which EPA had gas chromatography and mass spectrometry (GC/MS) standards. 64 Fed. Reg. at 72047-48 (discusses the history of Part 503 information gathering on the fate and concentrations of pollutants in biosolids). See, www.epa.gov/fedrgstr.

Where the *available scientific information* indicated there was no risk of harm even at the highest pollutant concentration level found in the Biosolids Survey, the pollutants were dropped from further risk assessment. Most of the 412 pollutants are simply not present in biosolids at levels of concern. The National Standards for Biosolids Use, 40 CFR Part 503, establish limits for nine common metals and pathogenic organisms (which heat drying kills) at the no observable adverse effect level and a level of protection of 1 case in 10,000 for cancer risk. The 1993 technical support documents on biosolids risk assessment are available at EPA's website: www.epa.gov/OST/pc/municipal.html, and the National Biosolids Partnership also links the scientific risk assessments, www.biosolids.policy.net.

Louisville Green is well below the Part 503 national standards. Where EPA lacked sufficient *available scientific* data to establish a standard, the pollutants, totally 31, were subjected to a Comprehensive Hazard Identification Study. This screening analysis included dose-response evaluation, exposure assessment and risk characterization. The US EPA concluded, in a December 23, 1999, notice published at 64 Federal Register 72048, that only 3 pollutant compounds left on its list, analytically measured as 29 dioxin-like congeners, might pose an increase risk for a hypothetical highly exposed (through the food chain, primarily daily fats, meat fats and fish that have bioaccumulated the congeners) rural breast feeding mother and child. EPA has proposed a national standard and a final standard is expected after EPA completes its comprehensive Dioxin Reassessment, see, <http://cfpub.epa.gov/ncea/index.cfm>.

Section 12. Ecological Information

Exotoxicity	Not available. Keep out of any body of water.
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Section 13. Disposal Considerations

Waste Disposal	Sweep, vacuum or shovel material into labeled container. If possible, reuse product. Material is a fertilizer and should be used as such. Keep out of any body of water. Ensure compliance with local, state or federal regulations. Bulk wetted material may generate heat during storage.
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Section 14. Transport Information

Proper Shipping Name	Fertilizer material
DOT Identification Number	NA
Hazard Class	NA
SEC 302	Not Listed
SEC 304	Not Listed
SEC 313	Not Listed
CERCLA	Not Listed
CAA	Not Listed
TSCA	Not Listed

Section 15. Regulatory Information

Federal and State Regulations	Yes	Fire
	No	Sudden Release of Pressure
	No	Reactivity SARA Title III Information
	No	Immediate Health
	No	Delayed Health

Section 16. Other Information

Disclaimer: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, MSD makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for its particular purpose. Accordingly, Metropolitan Sewer District will not be responsible for damages of any kind resulting from improper use of or reliance upon such information. No representations, or warranties, either expressed or implied or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers.

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