



Louisville Green Material Safety Data

Section 1. Product and Company Information

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| 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

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| 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

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| 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

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| 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

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| 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

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| 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

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| 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

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| 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

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| 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

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

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| 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

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| 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

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| 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

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| Updated | 12-18-12 | Updated by Jared Bishop, Loss Control Administrator |