



Metropolitan Water Reclamation District of Greater Chicago

SAFETY DATA SHEETS (SDS)

OSHA HazCom Standard 29CFR 1910.1200(g) and GHS Rev 03.

Section 1. Product Identification and Company Information

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| Product Name | EQ Compost |
| Synonyms | Composted Biosolids, Exceptional Quality Compost |
| Recommended Use | Use as a soil amendment by blending with topsoil or incorporating into in-place soil for establishing plants. |
| Manufacturer | MWRD Headquarters 100 East Erie Street, Chicago, IL 60611 |
| Telephone Number | (312) 751-5600 |
| Emergency Contact | (312) 787-3575 |
| Non-Emergency Contact | (708) 588-4201 or email: Biosolids@mwr.org |

Section 2. Hazard(s) Identification

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| Emergency Overview | Not classified as hazardous for supply/use |
| Routes of Entry | Through ingestion, inhalation, or eye, not skin |
| Acute Health Hazards | None identified |
| Chronic Health Hazards | None identified |
| Label Elements | |
| Hazard Symbol | None |
| Signal Word(s) | None |
| Hazard Statement(s) | None |
| Precautionary Statement(s) | None |

Section 3. Composition/Information on Ingredients[‡]

| Name | CAS Number | % of Weight | Exposure Limits: TLV/PEL* |
|----------------------------------|-------------------|--------------------|---|
| Anaerobically Digested Biosolids | NA | 25-35% | Total Dust: 15 mg/m ³ (PEL) 10 mg/m ³ (TLV) Respirable Dust: 5 mg/m ³ (PEL and TLV) |

| Name | CAS Number | % of Weight | Exposure Limits: TLV/PEL* |
|------------------------------------|------------|----------------------|---------------------------|
| Polymerization Agents | Varies | <1% | NA |
| Wood Chips | NA | 10-30% | Same as above |
| Yard Waste | NA | 0-10% | Same as above |
| Other Recyclable Organic Materials | NA | <5% | Same as above |
| Water | 7732-18-5 | Balance [§] | |

* OSHA Standards: PEL – Permissible Exposure Limits; TLV – Threshold Limit Values. [§]Trace metals may be detected in quantities < 1%, most < 0.1%.


[‡]Contain microorganisms naturally derived from biosolids or compost bulking agents or composting process; no genetically engineered or altered microorganisms are involved.

Section 4. First Aid Measures



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| Eye Contact | Remove any contact lenses and immediately flush eyes thoroughly with water for at least 15 minutes to avoid irritation due to dust. Seek medical attention if irritation persists. |
| Skin Contact | None |
| Inhalation | Seek medical attention if symptoms of illness related to irritations from dust after inhalation are noticed. |
| Ingestion | As is the case with typical topsoil and other types of compost, in case of ingestion and if any symptoms occur, seek medical attention. |

Section 5. Fire-Fighting Measures and Explosion Data

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| Flammability | Most of the constituents are non-combustible at normal moisture and temperature conditions. |
| Flash Point | Not Available Data from Literature [§] Minimum Ignition Energy: > 250 mJ Minimum Ignition Temperature: 200 – 260 °C Minimum Explosive Concentration: 40 - 200 g/m ³ |
| NFPA Hazard Classification |  Health – 0; Fire – 1; Reactivity – 0 Rank: 0 – No obvious hazard, 1 – Least, 2-Moderate, 3-High, 4-Extreme |
| Explosive Limits in Air | LEL [‡] : NA UEL [‡] : NA |
| Unusual Fire and Explosion Hazards | Do not breathe fumes as fire may generate smoke and fine particles similar to other non-hazardous organic material. |

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| Fire Fighting Media, Procedures and Instructions | As in any fire, wear full protective gear as approved by NIOSH*. Use dry chemical, carbon dioxide, alcohol-resistant foam, or water for fire control. Prevent runoff from entering drains, sewers, or any water body. Becomes slippery when wet. |
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§From: https://www.icheme.org/communities/subject_groups/safety%20and%20loss%20prevention/resources/hazards%20archive/~~/media/Documents/Subject%20Groups/Safety_Loss_Prevention/Hazards%20Archive/XVI/XVI-Paper-18.pdf (Assessed on: February 13, 2018).

¥LEL – Lower Explosive Limit; UEL – Upper Explosive Limit.

*National Institute for Occupational Safety and Health.

Section 6. Accidental Release Measures

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| Accidental Spills | Sweep, vacuum, or shovel material into labeled containers, and if possible, reuse product. Ensure that disposal or reuse is in compliance with local, state, or federal regulations. |
| Environmental Precautions | Do not let product or runoff from product enter drains or water bodies. |
| Procedures and Personal Precautions | Prevent generating dust and inhalation and ingestion of dust. EQ Compost is typically moist and not likely to produce dust under normal use. Avoid mixing with dry soil to reduce the potential for generating dust. |

Section 7. Handling and Storage

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| Precautions for Safe Handling | Wash hands with soap and water as a general hygienic practice. |
| Conditions for Safe Storage, Including Any Incompatibilities | Store in ambient temperatures. Keep materials out of reach of children to prevent accidental ingestion. For bulk storage recommendations, refer to EPA’s “Guide to Field Storage of Biosolids.” This document can be found on the EPA’s website at: https://www.epa.gov/biosolids/guide-field-storage-biosolids . |

Section 8. Exposure Control/Personal Protection

| CAS # | Generic Chemical Name | OSHA TWA | ACGIH TWA | Other Limits |
|--------------------------|--|----------|-----------|--------------|
| NA | Biosolids | ND | ND | ND |
| Ventilation Requirements | None required under outdoor use conditions. For indoor conditions, use sufficient ventilation to keep dust levels below TLVs (See Section #3). | | | |
| Eye Protection | None required for normal use | | | |
| Skin Protection | None required for normal use | | | |
| Respiratory Protection | None required for normal use | | | |

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| Other Protection | None required for normal use |
| Work/Hygienic Practices | Wash hands as a hygienic practice after working with EQ Compost as you would practice after doing gardening. |

Section 9. Physical and Chemical Properties

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| Description and Appearance | Solid, dark brown in color when moist |
| Odor | Earthy |
| pH | 6.5 to 8.5 |
| Boiling Point | Not Relevant |
| Specific Gravity | 30 – 45 lbs/ft ³ |

Section 10. Stability and Reactivity Data

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| Chemical Stability | Product is stable. |
| Conditions of Instability | Keep away from heat, sparks, open flame, moisture. |
| Incompatibility with Various Substances | None under normal conditions |
| Hazardous Decomposition Products | Expected to release same type of smoke and fine particles as would be released during combustion of any nonhazardous organic material. |
| Hazardous Polymerization | Not likely |

Section 11. Toxicological Information

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| Epidemiology | No information available |
| Reproductive Toxicity | No data available |
| Eye Contact | May cause eye irritation due to dust if the material is dry. |
| Skin Contact | No data available |
| Inhalation | May cause nasal or throat irritation due to dust if the material is dry. |
| Ingestion | Non-toxic |
| Carcinogenicity | Not listed as carcinogenic by OSHA, NTP, or IARC |
| Sensitizer | Not known to be sensitizer |
| Mutagen | Not known to be mutagen |
| USEPA 40 CFR Part 503 (Biosolids Rule) | |
| The United States Environmental Protection Agency (USEPA) conducted an extensive risk assessment aimed at protecting human health and the environment and developed 40 CFR Part 503 regulations promulgated in 1993, which dictate acceptable pollutant concentrations, pathogen levels, and material stability of biosolids that are land applied. The risk assessment | |

evaluated 14 pathways through which humans, plants, and animals can be exposed to biosolids, and the USEPA used the most restrictive pathway for each pollutant in setting the limits. In the first round of the risk assessment that resulted in the promulgation of 40 CFR Part 503 regulations on biosolids in 1993, 12 Contaminants of Emerging Concern (CECs) were also evaluated in the initial hazard assessment, including Benzo[a]pyrene. However, no CEC pollutants were ultimately regulated, as either concentrations of these organic pollutants in the Targeted National Sewage Sludge Survey (TNSSS) samples were very low or the risk assessment did not show reasonably anticipated adverse effects on public health or the environment. The 1993 technical support documents on biosolids risk assessment are available at the EPA's website: <https://www.epa.gov/biosolids/guide-biosolids-risk-assessment-epa-part-503-rule> and the National Biosolids Partnership also links the scientific risk assessments at www.biosolids.org. In general, it is well established that uptake and bioaccumulation of CECs in plants are expected to be little, if any, and is restricted to the roots for most CECs. The USEPA conducted additional pollutant screening in 2001 and TNSSS in 2006 and 2007. The results of these additional evaluations did not imply that the concentrations for any CEC are of particular concern to the USEPA. The federal standards for biosolids use, 40 CFR Part 503, established limits for nine common metals and pathogenic organisms. The levels of metals and pathogenic organisms in the MWRD's EQ Compost are well below the biosolids Part 503 federal limits for land application. The MWRD's EQ Compost meets the Exceptional Quality (EQ) Criteria for both trace metals and pathogen levels established for the highest quality biosolids.

Section 12. Ecological Information

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| General Ecological Information | EQ Compost has been widely used as a soil amendment and has been shown to enhance root growth of plants and improve soil health. EQ Compost, when added to soil, improves many of the soils physical and biological properties. |
| Terrestrial Environment | No adverse impact noted, if EQ Compost is applied at recommended rates and followed recommended management practices according to state and federal regulations. |
| Aquatic Environment | No adverse impact if proper best management practices are used; for example, appropriate buffer areas between application sites and water bodies or drainage ditches are applied according to regulations. |

Section 13. Disposal Considerations

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| Waste Disposal | Sweep, vacuum, or shovel material into labeled containers. If possible, reuse product. Material is a soil amendment and should be beneficially used. Keep out of drains and any water body. Ensure compliance with local, state, and federal regulations. |
| RCRA P-Series | None listed |

Section 14. Transport Information

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|---------------------------|-----------------------------------|
| Proper Shipping Name | EQ Compost or Composted Biosolids |
| DOT Identification Number | NA – Not regulated |
| Hazard Class | NA |
| SEC 302, 304, 313 | Not listed |
| CERCLA | Not listed |
| CAA | Not listed |
| TSCA | Not listed |

Section 15. Regulatory Information

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| U.S. FEDERAL REGULATIONS/STATE REGULATIONS | |
| SARA Title III Information: | |
| Immediate Health Impact | No |
| Delayed Health Impact | No |
| Fire | Yes |
| Sudden Release of Pressure | No |

Section 16. Other Information

Disclaimer: The information provided herein to the best of our knowledge is accurate and reliable as of the date this SDS was created/updated. However, the MWRD makes no representation as to the comprehensiveness or accuracy of the information. The MWRD will not be responsible for damages of any kind resulting from improper use of this amendment and not following local, state, and federal regulations. No representations or warranties, either expressed or implied, of 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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| SDS Creation Date | 5/25/2018 | Biosolids Utilization & Soil Science Section. |
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