

(APPROVED BY THE US DEPARTMENT OF LABOR AS
'ESSENTIALLY SIMILAR' TO FORM OSHA-20)
(MEETS REQUIREMENTS OF CFR 29 PART 1910.1200,
OSHA'S HAZARD COMMUNICATION STANDARD) NPCA 1-84

SECTION 01 - MANUFACTURER AND PRODUCT INFORMATION

MANUFACTURER: MILWAUKEE METROPOLITAN SEWAGE DISTRICT
735 NORTH WATER STREET DATE PRINTED: 12/07/87
MILWAUKEE, WI 53202

CURRENT FORMULA DATE:

EMERGENCY TELEPHONE NO.:
INFORMATION TELEPHONE NO.:

PREVIOUS FORMULA DATE:

TRADE NAME: MILORGANITE

MANUFACTURER'S CODE IDENTIFICATION:

PRODUCT CLASS: ORGANIC FERTILIZER

SECTION 02 - HAZARDOUS INGREDIENTS

INGREDIENT: ORGANITE SOLIDS (NUISANCE DUST)

PERCENT BY WEIGHT: 93.9 - 97.7%

CAS#: None

OCCUPATIONAL EXPOSURE LIMITS:

ACGIH: TLV - TWA	10.000	mg/m3
ACGIH: TLV - STEL	N/A	NOT APPLICABLE
ACGIH: TLV - C	N/A	NOT APPLICABLE
OSHA: PEL - TWA	15.000	mg/m3
OSHA: PEL - C	N/A	NOT APPLICABLE

VAPOR PRESSURE: N/A NOT APPLICABLE

Hazard for this material is as a dust only.

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INGREDIENT: BENZENE*

PERCENT BY WEIGHT: 0.42%

CAS#: 71-43-2

OCCUPATIONAL EXPOSURE LIMITS:

ACGIH: TLV - TWA	10.000	mg/m3, AS MILORGANITE
ACGIH: TLV - STEL	N/A	NOT APPLICABLE
ACGIH: TLV - C	N/A	NOT APPLICABLE
OSHA: PEL - TWA	15.000	mg/m3, AS MILORGANITE
OSHA: PEL - C	N/A	NOT APPLICABLE

VAPOR PRESSURE: N/A NOT APPLICABLE

INGREDIENT: TRACE TOXIC METALS*

PERCENT BY VOLUME: LESS THAN 1.0% (most less than 0.1%) CAS#: NONE

OCCUPATIONAL EXPOSURE LIMITS:

ACGIH: TLV - TWA	10.000	mg/m3, AS MILORGANITE
ACGIH: TLV - STEL	N/A	NOT APPLICABLE
ACGIH: TLV - C	N/A	NOT APPLICABLE
OSHA: PEL - TWA	15.000	mg/m3, AS MILORGANITE
OSHA: PEL - C	N/A	NOT APPLICABLE

VAPOR PRESSURE: 5.10 MMHG AT 20C

*Note: Maintaining 8-hour time weighted average exposure to airborne Milorganite dust below 10 mg/m3 consequently assures that the threshold limit value (TLV) and permissible exposure limit (PEL) for trace toxic components are likewise not exceeded.

INGREDIENT: MOISTURE (WATER)

PERCENT BY VOLUME: Balance

CAS#: 90-72-2

OCCUPATIONAL EXPOSURE LIMITS:

ACGIH: TLV - TWA	N/A	NOT APPLICABLE
ACGIH: TLV - STEL	N/A	NOT APPLICABLE
ACGIH: TLV - C	N/A	NOT APPLICABLE
OSHA: PEL - TWA	N/A	NOT APPLICABLE
OSHA: PEL - C	N/A	NOT APPLICABLE

VAPOR PRESSURE: N/A NOT APPLICABLE

The information contained in this section is considered confidential and proprietary and should be used only for safety and health.

SECTION 03 - HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE:

It is believed that persons will not voluntarily subject themselves to Milorganite dust exposures in sufficient doses to produce symptoms attributable to trace toxic components.

ACUTE (SHORT-TERM):

Respiratory tract irritation can be expected from Milorganite exposures in excess of the Threshold Limit Value (TLV) for nuisance dust (10 MG/M3).

CHRONIC (LONG TERM, CUMULATIVE):

No chronic effects have been reported.

TOXICITY INFORMATION:

Consult various toxicology references such as NIOSH's, "Registry of Toxic Effects of Chemical Substances" or Sax's "Dangerous Properties of Industrial Chemicals" for specific toxicity information regarding hazardous ingredients.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY OVEREXPOSURE:

Not applicable.

PRIMARY ROUTES OF ENTRY:

Dermal and inhalation.

EMERGENCY AND FIRST AID PROCEDURES:

Not applicable.

SECTION 04 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (F) (SETA FLASH CLOSED CUP): N/A

LOWER EXPLOSIVE LIMIT (LEL): N/A

FLAMMABILITY CLASSIFICATION:

OSHA: N/A

DOT: N/A

EXTINGUISHING MEDIA:

Water, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

SPECIAL FIREFIGHTING PROCEDURES: N/A

SECTION 05 - REACTIVITY DATA

STABILITY:

Stable. Dried Milorganite is a combustible solid and should be protected against fire just the same as wood or paper products.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong oxidizing agents.

Segregate from chemical oxidizers as with any other combustible organic material.

CONDITIONS TO AVOID:

Heat, sparks, open flames.

HAZARDS DECOMPOSITION PRODUCTS - FIRE, BURNING OR WELDING OF PRODUCT MAY FORM:

Carbon monoxide, carbon dioxide, oxides of nitrogen.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 06 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

No special precautions necessary.

WASTE DISPOSAL METHOD:

Dispose of in accordance with federal, state, and local waste disposal regulations.

SECTION 07 - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:

Half mask respirator suitable for nuisance dust.

VENTILATION:

Area of application should be thoroughly wetted to minimize airborne dust generation.

GOGGLES:

Goggles should be used to avoid possible mechanical injury to eyes from dust abrasion.

HYGENIC PRACTICES:

Observe good personal hygiene habits.

SECTION 08 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Consult local fire codes or insurance carrier for information on storage of large bulk quantities. Otherwise, utilize usual prudent measures as with storage of combustible wood or paper products.

OTHER PRECAUTIONS:

Use only as indicated. Application to food crops may result in accumulation of toxic trace metals upon digestion, with subsequent irreversible poisoning possible upon continued consumption.

SECTION 09 - PHYSICAL DATA

BOILING RANGE (°F AT 760 MMHG): N/A
VAPOR DENSITY: N/A
WEIGHT PER GALLON: N/A
% VOLATILE BY VOLUME: N/A
% SOLIDS BY WEIGHT: 93.9+% (BALANCE MOISTURE)
EVAPORATION RATE: 1.0 (H2O = 1)
VOC (LBS/GAL): TRACE (<1%)

SECTION 10 - OTHER INFORMATION

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.1200; Table of Priority Pollutants 1979-1985; Casarette and Doulls "Toxicology", MacMillan Press. 1980; Patty "Industrial Hygiene and Toxicology: Volume 2A"; Wiley - Intersciences, New York: 1981; Sax "Dangerous Properties of Industrial Materials", 1984; Threshold Limit Values and Biological Exposure Limits for 1987-1988; and American Conference of Governmental Industrial Hygiene.