



Materials Safety Data Sheets (MSDS) are provided with each delivery.

Read and understand MSDS prior to using MicroCm™.

If there are any questions, please call Environmental Operating Solutions, Inc. at (508) 743-8440.

Handling and storage guidelines

- Keep MicroCm™ containers (pails, drums and totes) **out of direct sunlight** whenever possible and **avoid extreme temperatures** (below 10° F and above 125° F)
- Keep MicroCm™ containers **tightly sealed** until they are ready for use. Do not loosen bungs or remove covers and caps on MicroCm™ containers prior to use
- If MicroCm™ containers are stored outside, cover with tarp or shelter sufficient to **prevent over exposure to ultraviolet light**.

Putting MicroCm™ Online

- Most chemical metering pumps typically used to pump methanol or other electron donors (carbon sources) in wastewater treatment plants are compatible with MicroCm™. These include metering pumps, peristaltic pumps and general use pumps.
- Appropriate measures should be taken to avoid cross-contamination of MicroCm™. Such measures are described below:
 1. **Mixing** – Like most chemicals, MicroCm™ should not be mixed with other chemicals including electron donors such as methanol, acetic acid, sodium acetate, sucrose solutions, ethanol or other chemicals
 2. **Transfer** – If MicroCm™ is transferred into a day tank or other storage tank, the transfer pump, hoses and the tank itself must be cleaned to prevent cross-contamination with other chemicals.
 3. **Dilution** – EOSi does not recommend that MicroCm™ be diluted with water as the physical and/or performance characteristics of the product *could* be compromised. Note: In some cases, small amounts of MicroCm™ are required and accurate dosing cannot be achieved unless the product is diluted due to metering pump constraints. Always consult an EOSi technician prior to diluting MicroCm™ for recommendations.

Metering MicroCm™ Drums

- Unscrew one of the two bung plugs using a bung wrench and insert chemical suction line into drum, making sure that the end of the suction line is near the bottom of the drum
- It is not recommended that drums be stored or used horizontally or on drum racks

Operator Guidelines

Metering MicroCm™ Totes

MicroCm™ can be drawn either from the spigot on the bottom of the tote (“bottom feed”) or from the top of the tote (“top feed”):

Bottom Feed

- Traditional totes or Intermediate Bulk Containers (IBCs) generally have either one of two threads on the spigot: a 2” NPT or Metric thread. It is necessary to have adapters and fittings available to handle both thread types. Contact an EOSi technician for more information on locating and purchasing these adapters.
- To prevent leaking, avoid cross-threading fittings and use Teflon tape
- Open/loosen the 6” cap or 2” bung on the top of the tote to prevent a vacuum from developing within the tote. This may cause damage to the metering pumps or the tote itself

Top Feed

- Open the 6” cap or 2” bung on the top of the tote and insert chemical suction line

Empty MicroCm™ Containers

- Do not use MicroCm™ containers for storage of any other chemicals, wastewater or any liquid or solid material as such containers cannot be retrieved and a deposit fee will be assessed. This is to ensure the quality of our product and the safety of delivery personnel.
- A deposit fee will be assessed for any delivered drums and totes that cannot be returned within a reasonable amount of time.

Clean Up

- MicroCm™ is easily cleaned with warm or hot water and dish detergent.