



WHAT ARE EM BOKASHI BALLS?

EM Bokashi Balls are made of dried mud into which EM Bokashi and activated EM have been kneaded. They are used to clean up bodies of water such as rivers, lakes, and oceans where there are concentrated deposits of sludge and slime.

HOW TO MAKE EM BOKASHI BALLS

BASIC MATERIALS:

- Dirt. It is usually best to use clay-like dirt that can easily be formed into balls.
- Activated EM (AEM). (Please see the EM Leaflet No.1)
- Molasses. (At 10% the volume of the activated EM. For example, use 7 Tbs of molasses for 1 liter/quart of activated EM.)
- EM Bokashi.
- EM-X Ceramics Powder. (In Japan, EM Super Cera Ferment C or Terra C is used.) (Optional)



(1) Mix EM Bokashi into the dirt. Mud from the mud flats in the body of water to be treated can also be used in place of dirt.

HOW TO USE EM BOKASHI BALLS

- Use EM Bokashi Balls in river bottoms and mud flats where slime has accumulated. Use one EM Bokashi Ball for each square meter of surface area.
- Use EM Bokashi Balls once each season until results are seen.
- Cleaning up oceans, rivers, lakes and ponds requires the application of EM into the water through a variety of methods. It is recommended that activated EM liquid also be regularly applied into the water to supplement the use of EM Bokashi Balls.
- Volunteer groups in Japan are cleaning up the Seto Inland Sea with EM. A video tape/CD of this activity is available from EM TECHNOLOGY NETWORK, please contact us at info@emtechnologynetwork.org



(2) Next mix in EM-X Ceramics Powder (optional). For the amount of powder, see below.



(3) Pour the molasses and activated EM mixture onto the dirt and then knead it well. Allow the molasses to dissolve into the Activated EM before mixing into the dirt.

RATIO OF MATERIALS

- When using dirt only: 10 parts dirt + Activated EM(AEM) + EM-X Ceramics Powder (optional).
- When using dirt and EM Bokashi: 8 parts dirt to 2-4 parts EM Bokashi + AEM + EM-X Ceramics Powder (optional).
- 8 parts dirt to 1-3 parts EM Bokashi + Special EM bokashi for EM Bokashi Balls+ AEM + EM-X



- Ceramics Powder (optional).
- When using dirt and mud from mud flats: 5 parts dirt to 5 parts mud flat mud + AEM + EM-X Ceramics Powder (optional).
- When using dirt and mud from mud flats and EM Bokashi: 9 parts dirt to 9 parts mud from mud flats + 1 part EM Bokashi + AEM + EM-X Ceramics Powder (optional).

Note:

- *Since the water content of the dirt and mud used will vary, the amount of AEM will vary as well. As a general rule, though, if for instance you produce 3.5 – 4 gallons of material you will need approximately 1 liter/quart of AEM. Always be sure to have enough AEM on hand in case it is needed. If you use it up, you can add extra water instead (don't be afraid to use a lot of AEM).*
- *The amount of optional EM-X Ceramics Powder will be between 0.5-1.0% of the total amount. For example, for 2.5 gallons of material this will equal 3.5 – 7 Tbs of EM-X Ceramics Powder.*



(4) Once the dirt has become muddy and thick, form it into tennis ball-size balls.



(5) Allow the balls to dry for 7-10 days in a dry, place out of direct sunlight.



(6) The balls are ready to use when they are covered with a layer of white fungus. Note: If the balls are stored in the winter or in a cold place they will not ferment well and white fungus will not appear. Always choose a warm place to store the balls.



Throwing EM Bokashi Balls into the water.



Fishermen Applying Activated EM into the water.