



Municipal Solid Waste (MSW) Treatment

Biodynamic at Work



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Distribution list:

MSW400

Our product MSW400 provides a simple, economical biological solution for MSW land fills:

Spraying MSW with MSW400 provides a controlled decomposition process :

- Dramatically reduces noxious gases (H_2S , NH_3) in biochemical ion-exchange;
- Reduces leachate volume and disinfects pathogens;
- Reduces [COD](#) and [BOD](#);
- Increases landfill capacity.

MSW400 is entirely non-toxic, a proprietary extraction of *Ascophyllum Nodosum* marine algae.

Its bio-active properties break down organic compounds in a metabolic process and eliminate both airborne and leachate toxicity.

Treatment Process

The following steps complete the MSW treatment process, depicted below:

Spraying landfill with
MSW400



Cover landfill
With non-woven
'hydro-cloth' (or soil
layer, if required by
law)



Leave for 7 days and
repeat with new layer
of MSW.



Dosage: 100ml of MSW400/m³ of waste.

How MSW400 Works?

- Ion exchange capacity of MSW400:
 - Immediate biochemical reduction of noxious gases (H_2S and NH_3).
- MSW400 is an ideal microbial culture media, aerobic and anaerobic:
 - Enhances mineralization of organic matter;
 - Reduces COD and BOD;
 - Improves CH_4 production;
 - Beneficial microbes outcompete pathogens.
- Robust microbial activity produces heat, which causes dehydration.
- Microbes consume water, therefore more dehydration.
- Blocks heavy metal contamination:
 - *Ascophyllum Nodosum* is known to bio-absorb/sequester heavy metals without release into plants, animals or eco-systems.
- Sets up balanced biological feeding cycle:
 - Feeds and speeds green micro-algae growth during daylight at top of landfill hence amasses CO_2 .
- Micro-algae dies at night and become needed Carbon source for better biology, means food for beneficial microbes and that means more biological degradation.
- Heat repels pests (birds, flies, rats).

MSW400 Results

- Better methane (CH_4) production, no Sulfide (H_2S) or ammonia (NH_3).
- No methane “pocketing” which means no explosion liabilities.
- Increases landfill capacity by a minimum of 100% (or more, depending on organic-to-inorganic content).