

INTEGRATED WASTE MANAGEMENT

WITH

NS-DL

Natural De-odorizer Cum De-composer



Morarka
Biotechnology
For Agriculture and Environment

Morarka Foundation has worked for more than Ten Years to develop Biotechnology Applications for Scientific Management and Waste Recycling. It has developed many Biotechnology solutions for solid waste management and waste water recycling. While moving forward to provide healthy environment, we have Biological sanitizers, which can help to check the foul smell of waste and increase its rate of decomposition.

Drawbacks in Current Waste Treatment Methods :

- Foul smell bounces back within 1-2 hours,
- Waste lies for years without decomposition,
- Products used are unsafe for waste handlers,
- Pathogens develop resistance slowly .
- Contamination of ground water by leachet.



Introducing... **NS-DL (Organic decomposer cum deodorizer)**

As a result of anaerobic digestion by microbes foul smell producing gases are released from bio-waste sites.

NS-DL contains biologically active ingredients which suppress an-aerobic decomposition and promotes aerobic decomposition. The equilibrium state soon shifts towards the aerobic micro-organisms and the colony of an aerobic microorganisms reduces due to starvation.

NS-DL is a fermentation product and dose not contain any harmful / hazardous chemical. Thus it is safe for handlers of waste. It dose not cause any irritation if inhaled during spraying or if comes in skin / eye contact. It contains locally harvested micro-organisms and is non toxic to human beings.

Advantages of **NS-DL in Solid Waste Management:**

- Effective for all types of bio-waste
- Higher energy efficiency as compared to incineration
- Suppression of harmful gases like Methane & Hydrogen Sulphide
- Reduction or elimination of harmful chemicals used traditionally
- Source treatment made easy
- Safe for handlers of waste
- Faster decomposition of waste into humus

Use of **NS-DL in Effluent Treatment:**

- Helps reduce BOD, COD & TSS
- Helps in controlling Coliform bacteria
- Reduction in Power (Aeration) & thus operating costs
- pH control without chemicals Reduction in sludge formation
- Suppression of foul odor, flies, mosquitoes
- Can be easily applied to existing treatment facility

**Effective
for Treating :**
Municipal Solid Waste
Municipal Waste Water
Kitchen & Horticulture Waste
Hospital Waste
Animal Carcass
Animal Waste
Sludge &
Other Bio-degradable
Waste

NS-DL APPLICATIONS



Preparation of diluted solution



Spraying on landfill site



Spraying on landfill site



Spraying on ETP plant



Spraying on blood coming out of slaughter house



Spraying in Fish Market



Spraying in Meat Market



Sprinkling on hospital waste



Spraying on hospital waste



Spraying on Public Urinal



Spraying on sewage water



Spraying on MSW Collection Bin



Spraying on animal carcass



Spraying in vegetable market



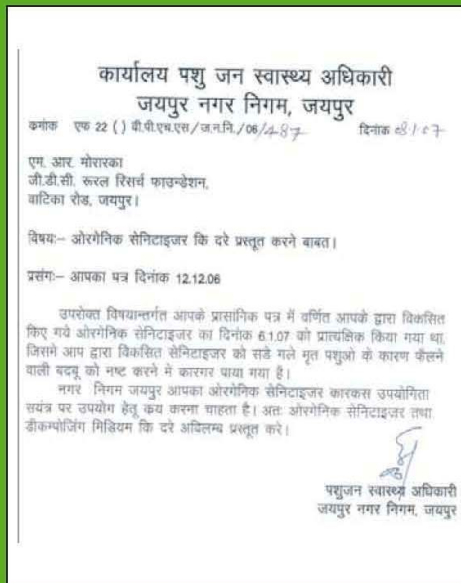
Spraying on municipal drain

Result : • **NS-DL** is found equally effective in checking foul smell of any kind of Bio-waste. • It is able to increase the rate of de-composition of waste into compost in solid waste. • It is able to increase the biological oxygen level in waste water besides reducing the volume of suspended solids. • It is a very effective tool to decompose food waste, human waste and animal waste.

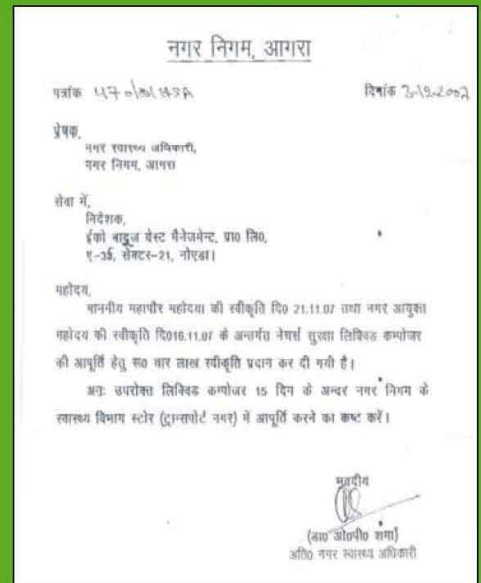
NS-DL is a safe, effective and economic tool to treat Bio-waste in an Eco-friendly manner.



Municipal Authority Suratgarh, Rajasthan



Jaipur Nagar Nigam



Agra Nagar Nigam



Certificate from Hospital Waste Management Company, Jaipur



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