



**RYDALL** **OE**  
 BIODEGRADABLE Odor Eliminator <sup>TM</sup>

## Odor Elimination with Positive Environmental Impact

**RYDALL OE** is a unique enzymatic biocatalyst containing a complex mixture of natural nutrients, vitamins, and trace elements. **RYDALL OE** is specifically designed to eliminate industrial odors and corrosion problems without the need for hazardous chemicals or masking fragrances. **RYDALL OE** is not only versatile and effective, but offers a completely safe liquid-phase odor solution.

Unlike chemical masking agents, **RYDALL OE** eradicates odor causing compounds by disallowing the formation of hydrogen sulfide, ammonia, mercaptan, and skatole. **RYDALL OE** is effective for both organic and inorganic odors. The solution contains no bacteria, is biologically degradable and non-toxic for humans, animals, fish and plants. **RYDALL OE** is safe, even at high concentrations, to personnel handling the product. No fumes or irritating vapors are released from this product which is non-flammable and non-corrosive to metals, concrete, and plastics.

There are virtually immeasurable numbers of unique odor control problems and challenges facing industry today. For instance, persistent landfill odors pose health and nuisance issues at and around landfills. As such, landfill owners and operators are facing increasing litigation from surrounding homes and facilities. In response to these needs, Apex Engineering Products Corporation offers **RYDALL OE**, an environmentally safe solution for the treatment of problematic odors and corrosion associated with landfill operations, waste water treatment plants, and other types of processes.

### What is **RYDALL OE** and How Does It Work?:

**RYDALL OE** is a technologically advanced product that is natural in origin, safe to handle and organically biodegradable in application. **RYDALL OE**'s formulation includes a newly discovered cell stimulant that works on eliminating a vast array of odors that often exist at landfills, sludge treatments, composting operations, scrubber systems, solids handling facilities, and other applications. **RYDALL OE** is non-hazardous, non-toxic, non-irritating, non-corrosive, and biodegradable.

Our liquid-phase technology is typically used in collection systems where control of both odors and corrosion are concerns and/or where multiple point odor control is an objective.

[www.ApexEngineeringProducts.com](http://www.ApexEngineeringProducts.com)

### Directions for Use:

**RYDALL OE** can simply be sprayed over the problematic area emitting hydrogen sulfide, ammonia, mercaptans and/or skatole. **RYDALL OE** should be applied on a continuous basis in order to ensure that odors are eliminated and cease to create a problem. Dosage is dependent on the strength and type of odor. Typical dosage requirements: 1 gallon of **RYDALL OE** per 500 to 50,000 gallons of water. Please contact Apex Engineering Products Corporation concerning dosage recommendations for your specific application.

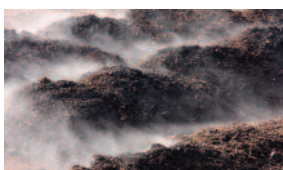
**Applications:**



**LANDFILLS** — *RYDALL OE* should be sprayed directly to the working face of the landfill. The daily cover can also be sprayed if permeating odors are a nuisance. The amount of *RYDALL OE* that is required is dependent on the amount of water that can be applied, the temperature, the strength and the type of odor.



**SLUDGE TREATMENT** — *RYDALL OE* is effective in treating sludge generated at waste water treatment plants in most collection and treatment facilities and other types of operations. Continuous spraying of the sludge conveyors is an effective way to reduce odors. Manually spraying heaps of sludge is also an effective way to reduce and control odors, but is not the preferred method. Furthermore, trucks and equipment can be washed down with *RYDALL OE* to remove any residual odors.



**COMPOSTING OPERATIONS** — *RYDALL OE* is very successful in reducing odors in composting operations as well. This can be done by spraying the compost material periodically. *RYDALL OE* also promotes degradation and enhances the quality of the compost. Organic solid content and ammonia are reduced while nitrate content is increased, making the compost a good fertilizer.



**SCRUBBER SYSTEMS** — *RYDALL OE* can be used in biochemical scrubber systems by adding the product continuously into the recirculation holding tank with a dosing pump. Generally, a chemical scrubber can be retrofit as a biochemical one. The amount of *RYDALL OE* usage depends on the recirculation and characteristics of the odors that are being eliminated.



**OTHER APPLICATIONS** — Applications of *RYDALL OE* are practically limitless...solids handling facilities, collection systems, primary treatment facilities, wash racks, wash stations, sumps and any application that has an unpleasant odor can be eliminated with *RYDALL OE*!

Use <i>RYDALL OE</i> On These Common Landfill and Sludge Odors	SUBSTANCE	FORMULA	REMARKS
	Ammonia	NH <sub>3</sub>	Sharp, pungent odor
	Benzyl mercaptan	C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> SH	Unpleasant odor
	Crotyl mercaptan	CH <sub>3</sub> -CH:CH-CH <sub>2</sub> SH	Skunk odor
	Ethyl mercaptan	CH <sub>3</sub> CH <sub>2</sub> SH	Odor of decayed cabbage
	Ethyl sulfide	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> S	Nauseating odor
	Hydrogen sulfide	H <sub>2</sub> S	Rotten egg odor
	Methyl sulfide	(CH <sub>3</sub> ) <sub>2</sub> S	Odor of decayed vegetables
	Skatole	C <sub>9</sub> H <sub>9</sub> N	Fecal odor, nauseating
Thiocresol	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> -SH	Rancid, skunk like odor	

**BIODEGRADABLE**

For additional information, please contact our manufacturing facility at 630-820-8888 or visit our website at [www.ApexEngineeringProducts.com](http://www.ApexEngineeringProducts.com).

Precautions: *RYDALL OE* is effective on both organic and inorganic odors. It is safe for humans, safe for animals, safe for fish, safe for plants, and safe for our environment! *RYDALL OE* is non-hazardous, non-toxic, non-irritating, non-corrosive, and biodegradable.

Product designs and specifications are subject to change without notice. User is responsible for determining suitability of product.