Wastewater

Technical Data Sheet

Omya Optical S

A high-solids natural calcium carbonate slurry to enhance the activated sludge process



THINKING OF TOMORROW

Omya Optical S

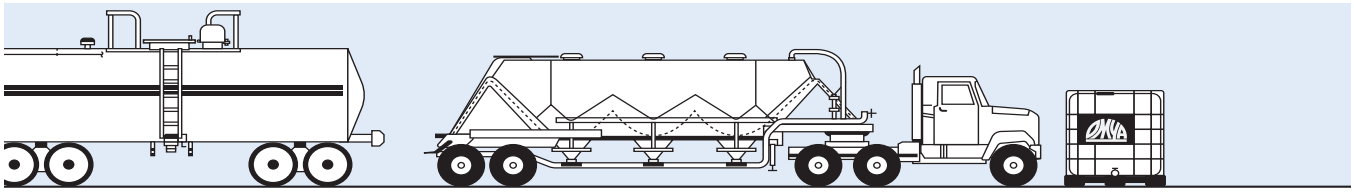
Applications:

- Alkalinity addition and pH stabilization within activated sludge processes
- Stabilization of nitrification processes
- Improved floc formation throughout municipal wastewater treatment processes
- Reduction of sludge bulking following sedimentation processes
- Improved dewatering of waste activated sludge (WAS)

Properties	
Solids content	72-78% w/w
Median particle size d_{50}	1-3 µm
Typical $CaCO_3$ content	98%
Typical HCl insoluble content	<1%
pH	9.5
Density (25°C / 77°F)	1.83-1.97 g/cm³
Viscosity (25°C / 77°F)	150-250 mPas
Alkalinity addition per kilogram	750 g as $CaCO_3$ or 15 mol as HCO_3-

Product Supply Options

Omya Optical S can be supplied in railcars, bulk trucks or 275 gal totes.



Storage and Feed Requirements

- Omya Optical S must be stored at temperatures between 2°C (37°F) and 60°C (140°F). Avoid freezing.
- Omya Optical S is an engineered product with high stability profile. Some degree of agitation is still recommended to avoid settling.
- Peristaltic hose pumps and progressive cavity pumps are recommended for accurate and consistent dosing. The use of membrane and diaphragm pumps can lead to blockages on pump ball check valves.
- Avoid product dilution where possible as this reduces product stability.
- Do not mix with concentrated caustic soda, lime or any other neat chemicals. When repurposing existing tanks, professional cleaning required. Tank rinse water must be near pH neutral.
- Minimize contact with air to avoid drying.
- Omya Optical S is a dense product. Please confirm tanks are suitably designed to meet increased density.

For more information, please consult the **Customer Storage Guidelines**.

Material Compatibility

The following chart indicates the compatibility of Omya Optical S with a range of construction materials:

Stainless steel	+
Aluminium	o
Copper & Brass	+
Carbon steel	+
HDPE & LDPE	+
PVC	+
ABS	+
Cement	+
EPDM	+
FPM	+
NBR	+
Silicone	+
PTFE	+

+ Excellent compatibility (minimal or no effect)
o Moderate compatibility (some degradation may be experienced with extended use)
- Not recommended (potential damage or adverse effects)

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