

# MANGANESE NITRATE SOLUTION

## Description

Manganese Nitrate Solution is pink to salmon and it has a slight nitric acid odor. It can be used to correct manganese deficiencies in plants. Manganese Nitrate Solution is compatible with many liquid fertilizers, micronutrients, pesticides, and water. It mixes easily with calcium chloride, calcium nitrate, ammonium nitrate, magnesium nitrate, copper nitrate and zinc nitrate.

## Handling & Storage

Always conduct a jar test with new tank mixes to verify compatibility. It is recommended product be stored above 60°F at all times.

This product may be corrosive to aluminum, mild steel, and/or brass if not diluted. Store in fiberglass, polyethylene or stainless steel containers/tanks. Check with equipment manufacturer for compatibility of components prior to use with this product.

Store in a cool place out of direct sunlight. Location should be inaccessible to children, pets, domestic animals, and/or wildlife.

Absorbent combustible materials such as sawdust and other organic materials should never be used to absorb manganese nitrate solution. Use clean sand or limestone for this purpose. Water may be used, but note "Environmental Considerations" below. For further information, see the Manganese Nitrate Safety Data Sheet.

## Environmental Considerations

As manganese nitrate solution is a hazardous oxidizing liquid, spillage of the liquid must be contained. Secondary containment around tanks must be constructed so as to contain leaks. Wash water should not be permitted to enter sewers or streams.

## Shipping

Manganese Nitrate Solution is classified as a corrosive oxidizing material. The US Department of Transportation proper shipping name is: UN3093, Corrosive liquid, Oxidizing, N.O.S. (Manganese Nitrate Solution), 8 (5.1), PGII. The Emergency Response Guidebook Number is 140. Manganese Nitrate Solution transported in bulk (>119 gallons) must be placarded.



## Chemical & Physical Properties

Chemical Formula	Mn(NO <sub>3</sub> ) <sub>2</sub>
Molecular Weight	N/A
CAS number	10377-66-9
Specific Gravity @ 60°F (15°C)	1.540
pH	< 1
Salt Out Temp	54.9°F (12.7°C)
Weight	12.84 lbs/gal (1.54 kg/L)
Gallons per Ton	155.76 (0.65 l/Kg)
Odor	Slight nitric acid odor
Color	Pink to Salmon

## Typical Analysis

Total Nitrogen	7.0%
7.0% Nitrate Nitrogen	
Manganese (Mn)	15.0%
Manganese Nitrate (Mn(NO <sub>3</sub> ) <sub>2</sub> )	49.15%
Insoluble	<0.01%
Aluminum (Al)	<50 ppm
Iron (Fe)	<30 ppm

The data presented herein are believed to be accurate but are in no way guaranteed. TradeMark Nitrogen Corp. makes no warranties, express or implied, that any of the above data is fit for any particular use and expressly disclaims all oral warranties of any kind.

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