

# Material Safety Data Sheet (MSDS) – CHB Manganese 5%

Section One Identification of Product		
<b>Manufactures Name:</b>	<b>Emergency Telephone Number(s):</b>	
Bio-Gro, Inc. 681 Glade Road Mabton, WA 98935	1-509-894-4110 1-800-738-7457 Contact Person: Peter Aleman	
Trade Name and Synonyms:	<b>CHB Manganese 5%</b>	
Chemical Name and Synonyms:	<b>Manganese Sulfate</b>	
Chemical Family:	<b>Natural Amino &amp; Organic acids</b>	
Section Two Hazardous Ingredients of Mixtures		
Component:	% (ppm)	Threshold Limit Value:
<b>Manganese Sulfate (CAS – 7339-95-4)</b>	<b>15.8%</b>	<b>Not available</b>
Substances Contained in Product Regulated Under SARA, Title III, Section 313:		
None	--	--
Section Three Physical & Chemical Characteristics		
Boiling Point:	<b>100°C (212°F)</b>	
Vapor Pressure (mm Hg):	<b>N/A</b>	
Solubility in Water:	<b>Complete</b>	
Specific Gravity (H <sub>2</sub> O = 1):	<b>1.17 – 1.20</b>	
Vapor Density (Air=1):	<b>N/A</b>	
Reactivity in Water:	<b>NONE</b>	
Appearance & Odor:	Yellowish, Fermented Odor	
Section Four Fire & Explosion Data		
Flash Point (°F): <b>&gt;200</b>	Flammable Limits (%Vol): <b>N/A</b>	
<b>Fire Extinguishing Media:</b> Water spray, dry chemical, foam or carbon dioxide.		
<b>Special Fire Fighting Procedures:</b> Eliminate ignition source. Wear self-contained breathing apparatus and complete personal protective equipment. Use water spray to cool fire, exposed structures and tanks, and to disperse vapor cloud if fire is not present. Use water spray, dry chemical, carbon dioxide or foam.		
<b>Unusual Fire &amp; Explosion Hazards:</b> Although this material is not flammable in aqueous state, it will burn in the presence of a strong ignition source after the water is removed.		
Section Five Reactivity Data		
Stability:	<b>Stable</b>	
Conditions to Avoid:	<b>Excessive Heat</b>	
Incompatibility (Materials to Avoid):	Strong oxidizers	
Hazardous Decomposition Products:	Ammonia, Oxides of Nitrogen and Oxides of Carbon	
Hazardous Polymerization:	Will not occur	
Section Six Special Precautions		
Precautions to be taken in Handling & Storing: Store in cool, dry place, away from children and feed or food products. Do not contaminate other stored products or the storage area by the handling or storage of this material. Immediately clean up any spills, which may occur during storage. Do not allow material to Freeze.		
Other Precautions: Do not contaminate water supplies by handling & storage, cleaning of equipment or disposal of wastes. Keep work & storage areas clean.		

Read & follow precautionary measures on product label.	
Section Seven Health Hazard Data	
<b>Effects of Over Exposure: N/A</b>	
Routes of Entry:	Ingestion, Eyes, Skin and Inhalation.
Most Likely Routes of Entry:	Inhalation and skin contact
Emergency & First Aid Procedures:	
<b>Ingestion:</b>	Harmful if swallowed. Call a physician immediately.
<b>Eyes:</b>	Flush with running water for at least 15 minutes while holding eyes open. In cases of contact lenses, remove immediately. If irritation persists, get medical attention.
<b>Skin:</b>	Remove all contaminated clothing. Wash skin and hair thoroughly with soap and water. Wash clothing before reuse. If skin irritation persists, get medical attention.
<b>Inhalation:</b>	Remove to fresh air. If irritation persists, get medical attention.
Medical Conditions Aggravated by Exposure: None Known. Pre-existing skin or respiratory conditions may be aggravated by excessive and/or prolonged exposure to this material.	
Potential Carcinogen Status: None Known. None of the components of this material are listed by IARC, NTP or OSHA as a carcinogen.	
Section Eight Spill or Leak Procedures	
<b>Steps to be taken in case material is released or spilled:</b> Contain spill; absorb liquids by covering with clay or other absorbent material; vacuum, scoop or sweep up wastes and place in approved container for disposal.	
<b>Waste Disposal Method:</b> Material which cannot be used at site should be disposed of in an approved waste disposal site, follow all applicable Federal, State and Local laws. Triple rinse containers and offer for recycling or reconditioning, or puncture and dispose of in approved sanitary landfill. Do not contaminate water supplies by disposal of wastes or containers.	
Section Nine Special Protection Information	
Respiratory Protection: Not normally required. If vapors possibly could exceed acceptable levels, wear MSHA/NIOSH approved respirator or mask for protection against dusts, mists & vapors.	
<b>Ventilation:</b>	
Local Exhaust: Not normally required.	Special: Not normally required.
Mechanical: Use if ventilation is inadequate	Other: Work in well ventilated area
Protective Gloves:	Work gloves or impervious gloves recommended.
Eye Protection:	Chemical goggles or shielded safety glasses recommended.
Other Protective Equipment:	Wear clothing consistent with good practices for handling chemicals.
Section Ten D.O.T. Information & Date of Publication	
DOT Classification: <b>Not Regulated</b>	DOT Label: <b>Not Required</b>
Date of Issue: <b>April 10, 2002</b>	Supersedes: <b>N/A</b>