

Material Safety Data Sheet

Original Version: January 6, 2006

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Version: 9

Section 1- Product Identification and Use

Trade Name: Wolf Trax Manganese DDP (33% Manganese)

Product Use: Fertilizer (Plant Food)

Manufacturer:

Wolf Trax Inc.

800 – One Research Road

Winnipeg, Manitoba

Canada, R3T 6E3

Telephone: 204-237-9653

Section 2 -Hazardous Ingredients

The following chemical ingredients are hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200.

Manganese Chloride CAS# 7773-01-5

Manganese Sulfate CAS # 007785-87-7, EC # 232-089-9

International Regulations:

Chemical Name: Manganese compounds (33% Mn) CAS # 7439-96-5

Based on the toxicological properties of manganese this is a WHMIS controlled product under The House of Commons of Canada Bill C-70, Class D, Division 2, Subdivision B Toxic labels are required in Canada.



RCRA: This material as supplied is not a listed or characteristic hazardous material as defined by RCRA

TSCA: This material is not on the TSCA 8 (a) list; therefore no special reporting is required. As an inorganic substance it is exempt from Inventory Update Reporting.

State Regulations:

California proposition 65: This product does not contain any chemicals, which require warning under California Proposition 65.

Michigan Critical Materials: This product does not contain ingredients listed on the Michigan Critical Materials Registered.

Section 3 Physical Data

Physical State	Powder
Vapour Pressure	Not applicable
pH (5% aqueous solution)	6.5 – 8.0
Odour/Appearance	Light pink powder with no odour
Specific Gravity (H₂O=1)	Not applicable
Evaporation Rate	Not applicable
Boiling Point (°C)	Not applicable
Odour Threshold	Not applicable
Coeff. Water/Oil Dist.	Not applicable
Freezing Point	Not applicable
Vapour Density	Not applicable

Section 4 Fire and Explosion Data

Flammability	Not applicable
Means of Extinction	Water, CO ₂
Flashpoint (°C) And Method	Not applicable
Upper Flammable Limit (% By Volume)	Not applicable
Lower Flammable Limit (% By Volume)	Not applicable
Autoignition Temp (°C)	Not applicable
Hazardous Combustion Products	Thermal decomposition products are toxic and may include oxides of sulphur and manganese.
Explosion Data	None

Section 5 Reactivity Data

Chemical Stability	Stable
Incompatibility with Other Substances	Strong oxidizers. Lewis or mineral acids. Hydrogen Peroxide. Aluminum and its alloys. Magnesium.
Reactivity, and Under What Conditions	No
Hazardous Decomposition Products	None known

Section 6 Toxicological Properties

Route of Entry....	
Skin Contact	May cause skin irritation
Skin Absorption	Low Toxicity
Eye Contact	May cause irritation, tearing, and redness
Inhalation	May cause respiratory irritation. May increase the incidence of upper respiratory infections.
Ingestion	Relatively non-toxic may cause gastric irritation and nausea or diarrhea if ingested in large quantities.

Section 6 Toxicological Properties (Cont.)

Exposure Limits	OSHA PEL (STEL) 5 mg/M3 as Mn (ceiling)
Irritancy of Product	Not Applicable
Sensitization To Product	Not Applicable
Carcinogenicity	Not a listed carcinogen by NTP, IARC, ACGIH, OSHA or EPA
Teratogenicity	Non-teratogenic
Reproductive Toxicity	Not Applicable
Mutagenicity	Non-mutagenic
Synergistic Products	Manganese is a transition metal and could function as a catalyst for other reactions. Keep away from combustible materials, chlorates, aluminum powder, sulfur, hydrazine, hydroxyl amine, hydroxyl ammonium sulfate, ClF ₃ , H ₂ O ₂ , H ₂ SO ₃ , KN ₃ , RbHC ₂ , H ₂ S & Na ₂ O ₂

Section 7 Preventative Measures

Personal Equipment	Wear PVC or rubber gloves
Respirator	A filtering facepiece dust mask is recommended for most applications. A NIOSH/MSHA-approved dust and mist respirator may be used under conditions where airborne concentrations are very high.
Eye	Wear safety glasses or goggles. Hand wash bottles containing clean water available.
Footwear	Not required
Clothing	Not required
Engineering Controls	Mechanical ventilation not required
Leak and Spill Procedure	Use clean-up procedure that minimizes exposure to dust (vacuuming is preferred).
Waste Disposal	Dispose of according to local or government regulations for non-hazardous materials.
Handling Procedures	Keep in original container.
Storage Requirements	Store in dry place away from children and livestock
Shipping Information	No special requirements

Section 8 First Aid Measures

Inhalation	Remove to fresh air. Refer to physician.
Eye Contact	Flush eyes with large volumes of freshwater for 15 minutes. Refer to physician
Skin Contact	Remove contaminated clothing.
Ingestion	Rinse out mouth with water. Do not induce vomiting. Get prompt medical attention

Section 9 Transportation Information

Canadian TDG Act /U.S DOT Classification/ International Marine Dangerous Goods (IDMG):
Not regulated

Special Shipping Information: No special requirements

Section 10 Regulatory Information

Canada

CEPA-NSNR: All constituents of this product are included on the DSL

CEPA-NPRI: Manganese (and its compounds)

Controlled Products Regulations Classification (WHMIS):

D-2B Toxic (skin and eye irritant)

United States of America

Environmental Protection Act:

All constituents of this product are included on the TSCA inventory.

OSHA Hazard Communication:

(29CFR 1910.1200) Classification: Toxic; Skin and Eye irritant.

NFPA:

1 Health, 0 Fire, 0 Reactivity