SAFETY DATA SHEET

1. Identification

Product identifier **Wolf Trax Nu- Trax P+**

Other means of identification None

Recommended use Fertilizer

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Compass Minerals Manitoba Inc.

Address 800- One Research Rd.
Winnipeg R3T 6E3 CA

Telephone 855-237-9653

Website www.wolftrax.com

e-mail techservicesrequests@compassminerals.com

Emergency phone number 613-996-6666 (CANUTEC)

Supplier See above.

2. Hazard identification

Physical hazards Not classified.

Health hazards

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity following repeated exposure	Category 2

Environmental hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes serious eye damage.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Do not breathe dust.
Wash thoroughly after handling. Wear eye/face protection.

Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Get medical advice/attention if you feel unwell.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Metal oxide		HMIRA 10769	HMIRA 10769
Metal salt #1		HMIRA 10769	HMIRA 10769
Metal salt #2		HMIRA 10769	HMIRA 10769

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The filing date associated with this trade secret exemption is 2016-12-09

4. First-aid measures

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Skin contact	Brush away excess of dry material. Flush with water. Obtain medical attention if irritation persists.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth.
Most important symptoms/effects, acute and delayed	Dusts may irritate the respiratory tract, skin and eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear suitable protective clothing. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Carbon dioxide. Apply extinguishing media carefully to avoid creating airborne dust.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Firefighters should wear a self-contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of sulphur. Metal oxides.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	Not established.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Take up mechanically and collect in suitable container for disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Minimize dust generation and accumulation. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Avoid breathing dust. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Store in a cool, dry place out of direct sunlight. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

8. Exposure controls/Personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.
Metal salt #1 (CAS HMIRA 10769)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Respirable.
	TWA	2 mg/m3	Respirable.
Metal salt #1 (CAS HMIRA 10769)	TWA	0.2 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Respirable.
	TWA	2 mg/m3	Respirable.
Metal salt #1 (CAS HMIRA 10769)	TWA	0.2 mg/m3	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.
Metal salt #1 (CAS HMIRA 10769)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.
Metal salt #1 (CAS HMIRA 10769)	TWA	0.2 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Metal oxide (CAS HMIRA 10769)	STEL	10 mg/m3	Fume.
	TWA	5 mg/m3	Fume.
		10 mg/m3	Total dust.
Metal salt #1 (CAS HMIRA 10769)	TWA	5 mg/m3	Dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Individual protection measures, such as personal protective equipment

Eye/face protection Safety goggles or glasses.

Skin protection	
Hand protection	Wear suitable gloves.
Other	Wear suitable protective clothing. As required by employer code.
Respiratory protection	A dust filtering mask is recommended. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Not applicable.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance	Solid.
Physical state	Solid.
Form	Powder
Colour	Pink
Odour	Odourless
Odour threshold	Not available.
pH	4 - 5 (5% solution)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not applicable.
Flash point	Not available.
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Non-flammable.
Flammability limit - upper (%)	Non-flammable.
Explosive limit - lower (%)	Non-explosive.
Explosive limit – upper (%)	Non-explosive.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (Water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.

10. Stability and reactivity

Reactivity	Do not mix with other chemicals.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, sparks and open flame. Minimize dust generation and accumulation.
Incompatible materials	None when used and stored according to label directions.
Hazardous decomposition products	May include and are not limited to: Oxides of nitrogen. Oxides of sulphur. Metal oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May be harmful in contact with skin.

Eye contact	Causes serious eye damage.
Ingestion	May cause stomach distress, nausea or vomiting.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Components	Species	Test results
Metal oxide (CAS HMIRA 10769)		
Acute		
Inhalation		
LC50	Mouse	> 5.7 mg/L, 4 Hours
		2500 mg/m3
Oral		
LD50	Mouse	7950 mg/kg
	Rat	> 5 g/kg
		5000 mg/kg
Metal salt #1 (CAS HMIRA 10769)		
Acute		
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	2330 mg/kg
	Rat	2150 mg/kg
Metal salt #2 (CAS HMIRA 10769)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Mouse	57 mg/kg
	Rat	623 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye damage.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitisation	
Respiratory sensitisation	Not available.
Skin sensitisation	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Germ cell mutagenicity	Not classified.
Carcinogenicity	See below.

ACGIH Carcinogens

Metal salt #1 (CAS HMIRA 10769)	A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

MANGANESE ELEMENTAL AND INORGANIC COMPOUNDS, AS MN, INHALABLE FRACTION (CAS HMIRA 10769)	Not classifiable as a human carcinogen.

Reproductive toxicity	Not available.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Chronic manganese poisoning can result in impairment of the central nervous system and lung damage.
Further information	Not available.

12. Ecological information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test results
Metal oxide (CAS HMIRA 10769)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2246 mg/L, 96 hours
Crustacea	EC50	Water flea (Daphnia magna)	7.09 - 9.36 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	24.3 - 38.9 mg/L, 96 hours
Crustacea	EC50	Rotifer (Philodina acuticornis)	0.3 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.162 mg/L, 96 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

General Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada CEPA Schedule I: Listed substance

Metal oxide (CAS HMIRA 10769)	Listed.
Metal salt #2 (CAS HMIRA 10769)	Listed.

Canada Priority Substances List (Second List): Listed substance

Metal oxide (CAS HMIRA 10769)	Listed.

Metal salt #2 (CAS HMIRA 10769) Listed.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS status Controlled

International regulations

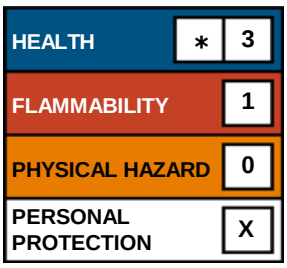
Inventory Status

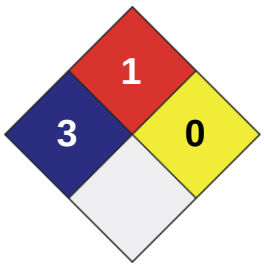
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Issue date 14-December-2016

Revision date 14-December-2016

Version # 02

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Prepared by Dell Tech Laboratories Ltd. Phone: (519) 858-5021