

Manganese Nitrate 50%

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Manganese Nitrate 50%

Synonyms/Generic Names: Manganese Dinitrate, Manganous Nitrate, Manganese (II) Nitrate

Product Number: 3350

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: No known OSHA hazards.

Target Organs: Brain

Signal Word: Danger

Pictograms:



GHS Classification:

Acute Toxicity, Oral	Category 4
Skin Corrosive / Irritation	Category 1
Serious Eye Damage / eye irritation	Category 1
Specific target organ toxicity, repeated exposure	Category 2 (brain)
Hazardous to the aquatic environment, long-term	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage
H373	May cause damage to organs (brain) through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P260	Do not breathe mist / vapors / spray.
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves / eye protection / face protection.
P301+P330+P331	IF SWALLOWED: RINSE MOUTH. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor / physician
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents / container in accordance with local / national regulation.

Potential Health Effects

Eyes	Causes serious eye damage. May cause eye severe irritation and corneal damage.
Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system.
Skin	Causes severe skin burns. May cause skin irritation, reddening, swelling.
Ingestion	May be harmful or fatal if swallowed.

NFPA Ratings

Health	3
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	3
Fire	0
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Manganese nitrate	50	10377-66-9	233-828-8	MnN ₂ O ₆	178.95 g/mol
Nitric acid	3-5	7697-37-2	231-714-2	HNO ₃	63.01 g/mol
Water	Balance	7732-18-5	231-791-2	H ₂ O	18.00 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Recommended extinguisher media: Water fog. Foam. Dry chemical powder. Carbon dioxide CO ₂ . Do not use water jet as an extinguisher. Use appropriate media for adjacent fire.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Dehydrated material is a strong oxidizer. Contact with combustible material may cause fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Manganese nitrate	5 mg/m ³	CEIL	OSHA
	0.02 mg/m ³ 0.1 mg/m ³	TWA	ACGIH
Nitric Acid	2 ppm 5.2 mg/m ³	TLV	ACGIH
	4 ppm 10 mg/m ³	STEL	ACGIH
	2 ppm 5 mg/m ³	PEL	OSHA

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and a face shield.
Inhalation	Provide local exhaust, preferably mechanical. Use an approved chemical respirator with organic vapors and full facepiece.
Skin	Wear nitrile or rubber gloves, and apron or lab coat.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Light pink liquid
Odor	Slight nitric acid odor
Odor threshold	Not Available
pH	<1
Melting point/freezing point	-5°C (23°F)
Initial boiling point and boiling range	>100°C (>212°F)
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	2.52 hPa estimated
Vapor density	Not Available
Density	1.54 g/cm ³
Solubility (ies) in water	Soluble
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Percent volatile	47% estimated
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical Stability	Stable
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Avoid contact with incompatible materials. Do not mix with other chemicals.
Incompatible Materials	Metals. Combustible materials. Bases. Reducing agents
Hazardous Decomposition Products	The nature of decomposition is not known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Manganese Nitrate

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral- rat- >300 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burns, irritation, redness, swelling
Eyes	Burns, Irritation, redness, watering eyes
Respiratory	Irritation, coughing. Prolonged or repeated exposure may cause damage to organs.
Ingestion	Harmful if swallowed. Severe gastrointestinal tract burns/irritation with nausea, vomiting.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available
Other	Harmful to aquatic life with long lasting effects. Because of the low pH of this product. It would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Manganese nitrate, Nitric acid), 8, pg II
TDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (MANGANESE NITRATE, NITRIC ACID), 8, PG II
IMDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (MANGANESE NITRATE, NITRIC ACID), 8, PG II
Marine Pollutant	No
IATA/ICAO	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Manganese nitrate, Nitric acid), 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
SARA 302	Listed: Nitric Acid
SARA 304	Listed: Nitric Acid
SARA 311	Reactive Hazards, Acute Health Hazards, Chronic Health Hazard
SARA 312	Reactive Hazards, Acute Health Hazards, Chronic Health Hazard
SARA 313	Listed: Nitric Acid
WHMIS Canada	Class C- Oxidizing Material Class E- Corrosive Material

16. OTHER INFORMATION

Revision	Date
Original	04/23/2020

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.