Safety Data Sheet

Issuing Date Apr-30-2015 **Revision Date** Sep-06-2018 **Revision Number** 1

1. IDENTIFICATION

Product identifier

Product name Nitrate Reducing Reagent

Other means of identification

Product Code(s) V-6279-CN

UN-No 2570

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Use as a laboratory reagent Laboratory chemicals Industrial (not for food or food contact use)

Restriction on use No information available

Details of the supplier of the safety data sheet

Initial Supplier Identifier
Evik Diagnostic Innovations, Inc.
1240 Teron Road, Unit 4
Kanata Ontario K2K 2B5
CANADA
T: 800-480-5519

Manufacturer Address
LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

Emergency telephone numbers

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Classification

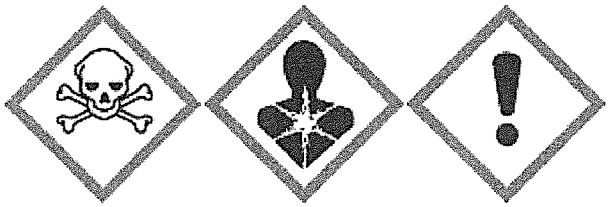
Acute toxicity - Oral	Category 4.
Acute toxicity - Dermal	Category 4.
Acute toxicity - Inhalation (Dusts/Mists)	Category 2.
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Label Elements

DANGER

Hazard statements

Harmful if swallowed. Harmful in contact with skin. Fatal if inhaled. Causes serious eye irritation. Suspected of causing genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.



Precautionary Statements Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves /protective clothing /eye protection /face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust /fume /gas /mist /vapors /spray. Use only outdoors or in a well-ventilated area. Wear respiratory protection.

Response: IF exposed or concerned: Get medical advice/attention. Specific treatment is urgent (see .? on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

Storage
Store locked up. Keep container tightly closed and in a well-ventilated place.

Disposal
Dispose of contents/container to an approved waste disposal plant.

Other Information
Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

99.15 % of the mixture consists of ingredient(s) of unknown toxicity.
33.84% of the mixture consists of ingredient(s) of unknown acute oral toxicity.
96.48 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
99.15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
99.15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
96.48 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not Applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Cadmium	7440-43-9	3	-	-
Manganese sulfate monohydrate	10034-96-5	10	-	-
Ammonium chloride	12125-02-9	45-55	-	-

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for Use personal protection equipment. As in any fire, wear self-contained breathing apparatus

fire-fighters pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Ensure adequate ventilation. Do not breathe dust. Evacuate personnel to safe areas. If you have not donned special protective clothing approved for this material, do not expose yourself to any risk of this material touching you. Avoid contact with skin, eyes or clothing.

Other Information Refer to protective measures listed in Sections 7 and 8. Knock down dust cloud with water spray.

Methods and material for containment and cleaning up

Methods for containment Keep out of drains, sewers, ditches and waterways. Prevent dust cloud. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits .

Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Cadmium 7440-43-9	TWA: 0.01 mg/m³ TWA: 0.002 mg/m³	TWA: 0.01 mg/m³ TWA: 0.002 mg/m³	TWA: 0.01 mg/m³ TWA: 0.002 mg/m³	TWA: 0.025 mg/m³
Manganese sulfate monohydrate 10034-96-5	TWA: 0.2 mg/m³	TWA: 0.2 mg/m³ Adverse reproductive effect	TWA: 0.02 mg/m³ TWA: 0.1 mg/m³	TWA: 0.2 mg/m³
Ammonium chloride 12125-02-9	TWA: 10 mg/m³ STEL: 20 mg/m³	TWA: 10 mg/m³ STEL: 20 mg/m³	TWA: 10 mg/m³ STEL: 20 mg/m³	TWA: 10 mg/m³ STEL: 20 mg/m³

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Respiratory protection	Use appropriate respiratory protection.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	powder
Appearance	Gray powder
Color	Gray
Odor	Slight
Odor threshold	No information available

Property	Values	Remarks • Method
pH	7	(0.1g/10mL water)
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Partly soluble	
Solubility in other solvents	No data available	
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid Exposure to air or moisture over prolonged periods. Excessive heat. Incompatible materials.

Incompatible materials Strong acids. Strong oxidizing agents. Strong bases. Finely powdered metals.

Hazardous decomposition products May emit toxic fumes under fire conditions. Cadmium oxides. Ammonia. Carbon oxides (COx). Nitrogen oxides (NOx). Sodium oxides. Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1,421.00 mg/kg

ATEmix (dermal) 1,450.00 mg/kg

ATEmix (inhalation-dust/mist) 0.07 mg/l

Unknown acute toxicity 99.15 % of the mixture consists of ingredient(s) of unknown toxicity

33.84% of the mixture consists of ingredient(s) of unknown acute oral toxicity

96.48 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

99.15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

99.15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

96.48 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component identification

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Cadmium 7440-43-9	= 1140 mg/kg (Rat)	-	= 25 mg/m³ (Rat) 30 min
Manganese sulfate monohydrate 10034-96-5	= 782 mg/kg (Rat)	-	-
Ammonium chloride 12125-02-9	= 1650 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Irritating to eyes.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Classification based on data available for ingredients. Contains a known or suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Cadmium 7440-43-9	A2	Group 1	Known	X
Manganese sulfate monohydrate 10034-96-5	-	-	-	-
Ammonium chloride 12125-02-9	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

STOT - single exposure No information available.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Cadmium 7440-43-9	-	0.0004 - 0.003: 96 h Pimephales promelas mg/L LC50 0.002: 96 h Cyprinus carpio mg/L LC50 0.003: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.006: 96 h Oncorhynchus mykiss mg/L LC50 static 0.016: 96 h Oryzias latipes mg/L LC50 0.24: 96 h Cyprinus carpio mg/L LC50 static 21.1: 96 h Lepomis macrochirus mg/L LC50 flow-through 4.26: 96 h Cyprinus carpio mg/L LC50 semi-static	-	0.0244: 48 h Daphnia magna mg/L EC50 Static
Manganese sulfate monohydrate 10034-96-5	-	-	-	-
Ammonium chloride	-	209: 96 h Cyprinus carpio	-	202: 24 h Daphnia

12125-02-9		mg/L LC50 static 725: 24 h Lepomis macrochirus mg/L LC50		magna mg/L LC50

Persistence and degradability No information available.

Bioaccumulation/Accumulation

Chemical name	Log Pow
Cadmium 7440-43-9	-
Manganese sulfate monohydrate 10034-96-5	-
Ammonium chloride 12125-02-9	-

Other adverse effects .

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

TDG

UN-No 2570
Proper shipping name CADMIUM COMPOUND
Hazard Class 6.1
Packing group III

DOT

UN-No 2570
Proper shipping name CADMIUM COMPOUND
Hazard Class 6.1
Packing group III

IATA

UN-No 2570
Proper shipping name CADMIUM COMPOUND
Hazard Class 6.1
Packing group III

IMDG/IMO

UN-No 2570
Proper shipping name CADMIUM COMPOUND
Hazard Class 6.1
Packing group III

RID

UN-No 2570
Proper shipping name CADMIUM COMPOUND

Hazard Class	6.1
Packing group	III

ADR

UN-No	2570
Proper shipping name	CADMIUM COMPOUND
Hazard Class	6.1
Packing group	III

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer	None known
The Stockholm Convention on Persistent Organic Pollutants	None known
The Rotterdam Convention	None known

International Inventories

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

NFPA	**Health hazards** 4	**Flammability** 0	**Instability** 0	**Physical and chemical properties** -
HMIS	**Health hazards** * 4	**Flammability** 0	**Physical hazards** 0	**Personal protection** X

Legend
Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Prepared by	Regulatory Affairs Department.
Issuing Date	Apr-30-2015
Revision Date	Sep-06-2018
Revision note	New Canada GHS format.

Disclaimer

The information provided in this Safety Data Sheet was prepared to the best of our knowledge, data and belief as of the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, and disposal of the product as it relates to properly trained personnel, and is not intended to be comprehensive. It is not to be considered a warranty or quality specification. Users are advised to exercise their own judgment to determine safety, safe handling, use, processing, storage, transportation, and disposal. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet