

DREXEL X[®]-NBPT

SECTION 1: MATERIAL IDENTIFICATION

Product Name: Drexel X[®]-NBPT
Product Usage: Fertilizer coating

Manufacturer: Drexel Chemical Company
Address: 1700 Channel Avenue
 PO Box 13327
 Memphis, Tennessee, 38113-0327, USA
 901-774-4370

Emergency Telephone Numbers: CHEMTREC 800-424-9300
 DREXEL CHEMICAL COMPANY 901-774-4370

SECTION 2: HAZARD IDENTIFICATION

(As defined by the OSHA Hazard Communication Standard, 29)

Label Elements:
Signal Word:

DANGER



Classifications:
Hazard Class:

Toxicity Study:

Acute Toxicity, Dermal
 Skin corrosion/ irritation
 Serious eye damage / irritation
 Reproductive Toxicity
 Specific Target Organs: Respiratory

Category:

Category 5
 Category 2
 Category 1
 Category 2
 Category 3

Hazard Statements:

H Code: Statement:

H313 May be harmful in contact with skin
 H315 Causes skin irritation.
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation
 H361 Suspected of damaging fertility or the unborn child

Precautionary Statements:

Prevention:

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wash face, hands and any exposed skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Use only outdoors or in a well-ventilated area.
 In case of inadequate ventilation, wear respiratory protection.
 Avoid release into the environment.

Response:

If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get immediate medical advice/attention.
If Swallowed: Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.
If Inhaled: Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER or doctor if you feel unwell.

If on Skin or Clothing: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If exposed or concerned: None available, get medical attention.

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

Disposal: Dispose of contents/container in accordance with your local or area regulatory authorities.

Specific hazards: None available.

SECTION 3: COMPOSITION INFORMATION

<u>Chemical Name:</u>	<u>Synonym:</u>	<u>CAS No.:</u>	<u>EC No.:</u>	<u>RTECS:</u>	<u>% By Wt.:</u>
Active Ingredient: N-(n-butyl)-thiophosphoric triamide (NBPT)	N-(n-butyl)-thiophosphoric triamide (NBPT)	94317-64-3	435-740-4	N/A	26.7%
Inert Ingredients:	N/A	N/A	N/A	N/A	73.3%

SECTION 4: FIRST-AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Skin/Clothing Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Indication of Medical Attention and Special Treatment Needed: None / Treat symptomatically, symptoms may be delayed. If medical advice is needed, have product container or label at hand. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE FIGHTING MEASURES

Fire Fighting Media: Water fog, water spray, carbon dioxide (CO2), foam. Do not use water jet as this will spread the fire.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Cool closed containers exposed to fire with water spray, if possible. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full

face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Specific Fire Hazards:

During a fire, irritating, corrosive and/or toxic gases may be produced. Can be dangerous when exposed to extreme heat and flame. Do not breathe mist/vapors/spray.


Flammability classification (OSHA 29 CFR 1910.1200):
Does not support combustion at 187°F.

Flash point: N/ Av
Lower flammable limit (% by volume): N/Av
Upper flammable limit (% by volume): N/Av

Hazardous Combustion Products:

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Oxides of Carbon, oxides of Nitrogen. Oxides of Sulfur.

National Fire Protection Association:

NFPA: 	Health	Fire	Reactivity
	2	1	0

Ratings: 4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to SECTION 7: HANDLING AND STORAGE, for additional precautionary measures. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

Environmental Precautions:

Do not flush into surface water or sanitary sewer system. Prevent from entering soil, ditches, sewers, waterways and/or groundwater. Refer to SECTION 12: ECOLOGICAL INFORMATION.

Steps to be taken if Material is Released or Spilled:

Control the spill at its source.

Small spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Prevent entry into waterways, sewers, basements or confined areas.

Large spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Contact Drexel Chemical Company for clean-up assistance. Refer to SECTION 13: DISPOSAL CONSIDERATIONS, for additional information. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7: HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

Handling: **General Handling:** Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing dust. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Wear chemical protective equipment when handling. Wear long-sleeved shirt, long pants and shoes with socks when handling. Keep away from heat, sparks and flame. Refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Storage: Avoid exposure - obtain special instructions before use. Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies. Always use oldest stock first.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Components:	OSHA PEL	ACGIH TLV
N-(n-butyl)-thiophosphoric triamide (CAS: 94317-64-3):	N/A	N/A
N-methyl-2-pyrrolidone, (CAS: 872-50-4):	TWA - 40 mg/m ³	100 mg/L (Urine)

THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Engineering Controls:

Ventilation: Investigate engineering techniques to reduce exposures. When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with an eyewash facility / station and safety shower. Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal Protection:

Eye/Face Protection: Eye contact should be avoided through the use of chemical safety glasses, goggles, or a face shield selected in regard to exposure potential. Wear chemical splash goggles to prevent vapors or mists from entering the eyes. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face thoroughly with soap and water before smoking or eating. Avoid getting wash water in eyes.

Hand Protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. Wear respiratory protection during operations where spraying or misting occurs. Wear air supplied respiratory protection. In the U.S.A., if respirators are used, a program should be in place to assure compliance with 29

CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Reported Value
Physical State	Liquid
Appearance / Color	Yellow – Orange
Odor	Mild odor
Odor threshold	Not available
pH	7.0 – 7.5
Melting point	Not available
Freezing point	14°F
Boiling point	Not available
Flash point	178°F / 81.1°C
Evaporation rate	Not available
Flammability	Does not support combustion at 187°F
Upper flammability/explosive limits	Not available
Lower flammability/explosive limits	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	9.39 lbs./gal. (1.12 grams/cc)
Solubility in water	Soluble
Solubility in organic solvents	Not available
Partition coefficient (n-octanol/water)	log Kow: N-methyl-2-pyrrolidone = -0.54.
Auto-ignition temperature	Not available
Decomposition temperature	Not determined. Recommendation is to store below 100°F.
Viscosity	less than 100 cst
Explosive properties	Not available
Oxidizing properties	Not available
Dissociation Constant	Not available

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Thermally stable at typical use temperatures and in closed containers.
Chemical Stability:	Stable under recommended storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Extreme temperatures.
Incompatible Materials:	Acids. Strong reducing agents. Strong oxidizing agents.
Hazardous Decomposition Products:	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Oxides of Carbon, oxides of Nitrogen. Oxides of Sulfur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

N-(n-butyl)-thiophosphoric triamide (CAS: 94317-64-3)

Potential routes of exposure/potential health effects: Skin contact, eye contact. Inhalation.

Acute Oral: LD₅₀ (Rat): >2,823 mg/kg

Acute Dermal: LD₅₀ (Rat): >2,000 mg/kg

N-methyl-2-pyrrolidone, (CAS: 872-50-4):

Potential routes of exposure/potential health effects: Skin contact, eye contact. Inhalation.

Acute Oral: LD₅₀ (Rat): 3,914 mg/kg

Acute Dermal: LD₅₀ (Rat): 8,000 mg/kg

Acute Inhalation: LC₅₀ (Rat): No data available

Eye Irritation: (Rabbit): Severe irritant

Skin Irritation: (Rabbit): Moderate irritant

Skin Sensitization: (Guinea Pig): No data available

Chronic Toxicity: Prolonged exposure may cause chronic effects.

Carcinogenicity: No data available

Mutagenicity: No data available

Teratogenicity: Avoid contact during pregnancy/while nursing.

Reproductive Toxicity: Possible reproduction hazard.

Developmental Toxicity: No data available

**Specific target organ toxicity-
single exposure:** May cause irritation of respiratory tract

**Specific target organ toxicity-
repeated exposure:** May adversely affect the liver and kidney based on animal testing.

Other Hazards Effects: No data available

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

**N-(n-butyl)-thiophosphoric
triamide
(CAS: 94317-64-3)**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

ECO-ACUTE TOXICITY

Fish, LC₅₀	96 hour	1,140 mg/L
Daphnia magna, EC₅₀	48 hour	290 mg/L
Daphnia magna, NOEL		150 mg/L

N-methyl-2-pyrrolidone
(CAS: 872-50-4):

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

ECO-ACUTE TOXICITY **Daphnia magna, EC₅₀ 24 hour** >1,000 mg/L

Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

Arthropod Toxicity: **Bees, Acute LD₅₀** No data available

Bird Toxicity: **Mallard Duck, LD₅₀** No data available
 Bobwhite Quail, LD₅₀ No data available

Algal Toxicity: **Green Algae, LC₅₀ 96 hour** No data available

Soil Organism Toxicity: **Earthworm acute toxicity** No data available

Persistence and degradability: Biodegradability: The product is not readily biodegradable
Bioaccumulation: No data available
Mobility in soil: This product is water soluble and may disperse in soil
Other adverse effects: Do not contaminate water supplies, lakes, streams, ponds or drains with this product.

SECTION 13: DISPOSAL CONSIDERATIONS

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: TRANSPORT INFORMATION

DOT: Not Regulated
IMDG: Not Regulated
IATA / ICAO: Not Regulated

UN Identification No.: Not applicable
Proper Shipping Name: Not applicable
Hazard Class: Not applicable
Packing Group: Not applicable
Reportable Quantity: Not applicable
Environmental Hazard: Not applicable
Freight Description: Fertilizing compounds (manufactured fertilizers), noi; liquid (nmfc 68140, sub 6; class 70)
ERG Guide No.: 171
Transport Information Note: None known/ Not applicable

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard: This product contains hazardous components as defined under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

Pesticide Registration: This product is subject to certain FIFRA labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Label Signal Word: DANGER
Label Information: KEEP OUT OF REACH OF CHILDREN
Label Information: PRECAUTIONARY STATEMENTS
 Hazards to Humans and Domestic Animals
 WARNING: Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Possible risk of impaired fertility. Do not handle until all safety precautions have been read and understood. Take off contaminated clothing and wash before reuse. If swallowed, call poison center, doctor / physician if you feel unwell. Do not eat, drink or smoke when using this product. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco or using the toilet. Do not apply this product in such a manner as to directly expose workers or other persons. If product is being mixed with pesticides and / or compatibility agents, follow the FIRST AID and Precautionary Statements on the product's labeling.

WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.
 Tests have not been carried out under all possible use conditions and Seller cannot and does not represent or warrant that the goods are compatible with all other chemicals or under all use conditions.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
 Wear eye protection, face protection, protective gloves and protective clothing.

EPCRA SARA Title III Classification:

Section 302:	Extremely Hazardous Substance Notification:	This material is not known to contain any Extremely Hazardous Substances.
Sections 311 and 312:	Immediate (Acute) Health Hazard:	Yes
	Delayed (Chronic) Health Hazard:	Yes
	Fire Hazard:	No
	Reactive Hazard:	No
	Sudden Release of Pressure Hazard:	No

Section 313 Toxic Release Inventory (TRI): N-methyl-2-pyrrolidone, CAS No.: 872-50-4

CERCLA/SARA 304 Reportable Quantity (RQ): Not listed / Not available

RCRA Hazardous Waste Classification (40 CFR 261): Not listed / Not available

US EPA Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):	N-methyl-2-pyrrolidone	Listed as causing:	Not listed
		Listing date:	Not listed
		Listing basis:	Not listed

This product contains chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

International Inventories:

TSCA	Complies
EINECS/ ELINCS	Complies
ENCW	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

SECTION 16: OTHER INFORMATION

Date Issued: March 31, 2021

Date Supersedes: March 06, 2020

Revision: 1

For all non-emergency questions about this product, please contact:

1700 Channel Avenue
PO Box 13327
Memphis, Tennessee 38113-0327, USA

Phone: 901-774-4370
Fax: 901-774-4666
Website: www.drexchem.com

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.