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### 1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY UNDERTAKING

1.1 Product identifier

Product name 25-0-3 Ultra N-Durance

1.2 Relevant use of the product

Applications Liquid fertilizer

1.3 Manufacturer, Importer or Responsible Party

Name FERTI TECHNOLOGIES

Address 560, Chemin Rhéaume, C.P 129

JOL 2JO

Saint-Michel, Québec, Canada

Telephone 450 454-7521

Contact email astpierre@fertitechno.com

1.4 Emergency phone number

Telephone USA National Capital Poison Center: 1 800 222 1222

#### 2. HAZARDS IDENTIFICATION

#### 2.1. The hazard classification of the chemical according to HCS 2012 (US-GHS)

Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H335

2.2. Danger symbols



2.3. Signal word Warning

**2.4.** Hazard statements H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

2.5. Precautionary statements

Prevention P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and

understood.

P260 Do not breathe dust.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face

protection.



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Response P304+P340 IF INHALED: Remove person to fresh air and keep comfortable

for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice/attention if you feel unwell.

Storage P405 Store locked up.

Disposal P501 Dispose of contents/container according to local regulations.

2.6. Description of any

hazards not otherwise

classified

Not applicable.

2.7. % ingredient(s) with

unknown acute toxicity

Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name		CAS-Nr.	Concentration %
Nitamin	Aqueous solution of triazone, methylene urea and urea	-	C = 55.6 %
Urea	Ammonium nitrate (44 %)	6484-52-2	C = 20.0 %
ammonium	Urea (35 %)	57-13-6	
nitrate	Water (21 %)	7732-18-5	
Water		7732-18-5	C = 15.3 %
0-0-62	Potassium chloride (95 % - 99.5 %)	7447-40-7	- C = 4.8 %
	Sodium chloride (0.3 % - 3.7 %)	7647-14-5	
	Calcium and magnesium; Chloride and sulfates (0.2 % -	Various	
	1.3 %)	Various	
Urea	Carbamide, Carbonyldiamide, Carbamidic Acid) (97.5% - 99.7%)	57-13-6	C = 4.2 %
	Alkalinity as ammonia (150 ppm max)		
	Methylenediurea (0 % - 2.5 %)	13547-17-6	
	Biuret (0% -1.5%)	108-19-0	
Agrotain ultra	Propylene glycol (40 % - 70 %)	57-55-6	C = 0.1 %
	Triamide N-(n-butyl)-thiophos phoric (10 % - 30 %)	94317-64-3	
	N-Methyl-2-pyrrolidone (10 % - 30 %)	872-50-4	
	Non-hazardous dye	Trade secret	



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#### 4. FIRST AID MEASURES

#### 4.1 First Aid measures after Inhalation

Following inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing

is difficult, give oxygen. Use oxygen as required, provided by a qualified

operator. Get medical attention if irritation develops and persists.

4.2 First Aid measures after Skin exposure

Following skin contact Wash off immediately with plenty of water for at least 15 minutes. Take off

contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Get medical attention if irritation develops and

persists.

4.3 First Aid measures after Eye exposure

Following eye contact Rinse immediately with plenty of water, also under the eyelids, for at least

15 minutes. Get medical attention if irritation develops and persists.

4.4 First Aid measures after Ingestion

Following ingestion Induce vomiting, but only if victim is fully conscious. Never give anything by

mouth to an unconscious person. Drink 1 or 2 glasses of water. Do not give

milk or alcoholic beverages. Call a physician.

4.5 Most important symptoms and effects, both acute and delayed

INHALATION In high concentrations, vapors may be irritating to the respiratory system.

SKIN Prolonged or repeated skin contact may cause irritation

EYES Contact with eye may cause serious irritation

INGESTION May be harmful if a large quantity has been ingested.

#### 4.6 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically.

### 5. FIREFIGHTING MEASURES

#### **5.1 Extinguishing media** *Suitable:*

Use extinguishing agent suitable for type of surrounding fire. Avoid excessive water to minimize runoff. Prevent firefighter water from entering the

environment.

Small fires: Water spray, foam, dry chemical or CO2

Large fires: Water spray, fog or foam.

*Unsuitable:* Not applicable.

# 5.2 Special hazards arising from chemical or mixture during the fire

Container may rupture on heating. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. Explosive reactions with oxidizing agents such as potassium chlorate and/or peroxides. In case of fire hazardous decomposition products may be produced such as:

- Sulphur oxides
- Ammonia
- Carbon monoxide
- Carbon dioxide (CO2)



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5.3 Special Protective Precautions or equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

#### 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions,protective equipment6.2 Emergency procedures

Wear personal protective equipment.

Unprotected persons must be kept away.

Evacuate personnel to safe areas. Provide adequate ventilation.

Avoid dust formation. Avoid breathing dust.

Avoid contact with skin, eyes and clothing.

6.3 Methods and materials used for containment

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

**6.4 Clean-up procedures** Use mechanical handling equipment.

Clean contaminated surface thoroughly.

Pick up and arrange disposal without creating dust.

Use a suitable vacuum cleaner.

## 7. HANDLING AND STORAGE

7.1 Precautions for safe

Handle with care.

handling

Wear personal protective equipment. Use only in well-ventilated areas.

Avoid dust formation.

Provide exhaust ventilation if dust is formed.

Dust must be extracted directly at the point of origin.

Avoid breathing dust.

Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Containers should be protected against falling down.

Containers which are opened must be carefully resealed and kept upright to

prevent leakage.

Store away from incompatible substances.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 ACGIH-Threshold Limit Value (TLV)

Exposure limit values of the components: Ammonia ACGIH TLV® = 35 ppm

#### 8.2 OSHA-Permissible Exposure Limit (PEL)

Exposure limit values of the components:



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Component / CAS	8H (OSHA, PEL)
	mg/m³
Ammonia (7664-41-7)	35 mg/m <sup>3</sup>

#### 8.3 Any other exposure limit used or recommended by chemical manufacturer

Non applicable

#### **8.4 Engineering Controls**

Provide exhaust ventilation if dust is formed. Dust must be extracted directly at the point of origin. Apply technical measures to comply with the occupational exposure limits.

#### 8.5 Personal Protective Equipment

Hand protection: Gloves

Gloves must be inspected prior to use. Replace when worn.

Eye protection: Do not wear contact lenses.

Wear as appropriate: Safety glasses with side-shields

**Body protection:** Long sleeved clothing

Respiratory protection: A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator use.

Hygiene measures: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use. Keep working clothes separately.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information of basic physical and chemical properties

Appearance (physical

Multicolored granules, solid

state, colour, etc.)

Odour threshold

Odour Odourless

Not applicable

рΗ No data available

Melting point/freezing

point;

No data available

**Boiling point** Not applicable

**Boiling Range** Not applicable



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Flash point No data available

Evaporation rate Not applicable

Flammability Not flammable

Upper/lower flammability

or explosive limits

No data available

Oxidising properties No data available

Vapour pressure Not applicable

Vapour density No data available

Density 5 lbs./ft<sup>3</sup>

Solubility in water Partially soluble

Other Solvents No data available

Partition coefficient (n-

octanol/water)

No data available

Auto ignition temperature No data available

Decomposition

temperature

No data available

Viscosity Not applicable

### 10. STABILITY AND REACTIVITY

10.1 Reactivity Not reactive under normal storage and handling condition

**10.2 Chemical stability** Stable under recommended storage conditions.

10.3 Possibility of hazardous

reactions

Hazardous polymerization does not occur.

**10.4 Conditions to avoid** Keep at temperatures below 5374 °F (190 °C)

**10.5 Incompatible materials** Strong oxidizing agents, Chlorates and Hypochlorites

10.6 Hazardous decomposition

products

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride.

Hydrogen chloride. Carbon monoxide. Carbon dioxide.



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#### 11. TOXICOLOGICAL INFORMATION

11.1 Measures of Toxicity

Acute toxicity: Ingredients:

> Ammonia as ammonium hydroxide: Acute toxicity: LD50 oral (Rat): 350mg/Kg

Urea:

Acute toxicity: LD50 oral (Rat): 8471 mg/Kg

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/irritation: Causes serious eye irritation

No data available Respiratory or skin sensitisation:

11.2 Listed in IARC or considered

carcinogen by NTP or OSHA

None listed

11.3 Further information Not applicable

### 12. ECOLOGICAL INFORMATION

12.1 Toxicity This product may be harmful to aquatic life. In sufficient quantity may

deplete oxygen required by aquatic life. May cause eutrophication of ponds

and lakes. Silica:

Toxicity to Algae and Crustacea

IC50: 440 mg/L (Exposure time: 72 Hours)

Species: Algae

EC50: 7600 mg/L (Exposure time: 48 Hours)

Species: Daphnia

12.2 Persistence and

degradability

No data available

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil No data available

12.5 Other adverse effects May release ammonium ions that are toxic to fish. Un-ionized ammonia

> concentrations above 0.02 mg/l are considered toxic in fresh water. May release phosphates which will result in algae growth, increased turbidity, and depleted oxygen. At extremely high concentrations, this may be hazardous to fish or other marine organisms. Release to watercourses may cause effects downstream. Fish 96 hour LC50, OECD Guidelines 203 (rainbow trout):

>86mg/L.



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## 13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods to employ	Recover or recycle if possible. Properly characterize all waste materials. Consult federal, state/provincial and local regulations regarding the proper disposal of this material. Prevent material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Empty containers should be taken to an approved waste handling site for recycling or disposal.			
13.2 Description of appropriate disposal containers to use	No data available			
13.3 Description of the physical and chemical properties that may affect disposal activities	No data available			
13.4 Language discouraging sewage disposal.	No data available			
13.5 Any special precautions for landfills or incineration activities	No data available			
14. TRANSPORT INFORMATION				
UN Number				
UN proper shipping name				
Transport hazard classes				
Packing group				
Environmental hazards				
Guidance On transport in bulk				
Special precautions for user				

### 15. REGULATORY INFORMATION

National and/or regional regulatory information of the chemical or mixtures <a href="Inventories:">Inventories:</a>



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US. Toxic Substances Control Act: No data available

OSHA Hazards: Carcinogen

<u>Clean Air Act:</u> This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

### **16. OTHER INFORMATION**

#### Indications on the revision

First edition: 08/10/2015

Addition of all fields as required by regulation (US) HCS 1910.1200 [HCS 2012]. Update of the classification information and update of related sections accordingly.

#### Abbreviations and acronyms used

ACGIH: American conference of governmental and industrial hygienist

CAS No.: Chemical Abstract Service Number

CFR: Code of Federal Regulations

EC50: Half maximal effective concentration HCS: Hazard communication standard LC50: Half maximal lethal concentration

LD50: Half maximal lethal dose

OSHA: Occupational safety and health administration STOT SE: Specific target organ toxicity Single exposure STOT RE: Specific target organ toxicity Repeated exposure

UN No.: United Nations Number

#### Methods of evaluation for the classification of mixtures

The classification of the mixture was set based on the regulation (US) HCS 1910.1200 [HCS 2012].

#### Other information

This information is based on our present knowledge and is provided according to the relevant national regulations. This information is intended as a characterization of the product in order to provide guidance for the relevant safety issues. However, this document does not provide any warranty, expressed or implied, regarding the properties of the product.