1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY UNDERTAKING

1.1 Product identifier

Product name	24-0-11 50%XCU 5%Fe

1.2 Relevant use of the product

Applications	Fertilizers

1.3 Manufacturer, Importer or Responsible Party

Name	FERTI TECHNOLOGIES
Address	560, Chemin Rhéaume, C.P 129 J0L 2J0 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

Hazard identification according to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

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

STOT RE 1	H372 Causes damage to organs [lungs] through prolonged or repeated exposure [inhalation].
Carc. 1A	H350 May cause cancer.
STOT SE 3	H335 May cause respiratory irritation.
Eye Irrit. 2A	H319 Causes serious eye irritation.
Skin Irrit. 2	H315 Causes skin irritation.

2.2. Danger symbols

2.3. Signal word Danger

2.4. Hazard statements H372 Causes damage to organs [lungs] through prolonged or repeated exposure [inhalation].

H350 May cause cancer.

H335 May cause respiratory irritation.

H319 Causes serious eye irritation.

H315 Causes skin 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. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P314 Get medical advice/attention if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water. P362+P364 Take off contaminated clothing and wash it before reuse. P308+P313 If exposed or concerned: Get medical advice/attention.
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 %
XCU	Urea (90 % - 95 %)	57-13-6	C = 27.9 %
	Sulfur (13 %)	7704-34-9	
	Polymer coating (5 %)	n/a	

	Non-hazardous dye (< 0.1 %)	Proprietary	
Urea mixture	Carbamide, Carbonyldiamide, Carbamidic Acid) (97.5% - 99.7%)	57-13-6	C = 26.1 %
	Alkalinity as ammonia (150 ppm max)		
	Methylenediurea (0 % - 2.5 %)	13547-17-6	
	Biuret (0% -1.5%)	108-19-0	
Calcium carbonate	Limestone (80 % - 100 %)	1317-65-3	C = 18.3 %
	Crystalline silica (20 %)	14808-60-7	
Potassium chloride		7447-40-7	C = 17.7 %
Iron oxide sulfates		1309-37-1	C = 10.0 %

4. FIRST AID MEASURES

4.1 First Aid measures after Inhalation

Following inhalation — If inhalation occurs, remove affected person from area to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. 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 — Rinse mouth. Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. If large quantities are swallowed, seek medical attention.

4.5 Most important symptoms and effects, both acute and delayed

INHALATION — May cause respiratory irritation. Causes damage to organs [lungs] through prolonged or repeated exposure [inhalation].
SKIN — Causes skin irritation.
EYES — Causes serious eye irritation.
INGESTION — Not classified.

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

Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. In case of fire hazardous decomposition products may be produced such as:

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

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 equipment

Wear personal protective equipment.

6.2 Emergency procedures

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 Cleanup 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 handling

Handle with care.
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 Occupational Exposure Limits

ACGIH Nuisance dust limit of 10mg/m^3 (inhalable) and 3mg/m^3 (respirable) may apply to this product.

Exposure limit values of the components:

8.2 OSHA-Permissible Exposure Limit (PEL)

Exposure limit values of the components:

Component / CAS	**8H (OSHA, PEL)**
	mg/m^3
Quartz (SiO2) CAS N°: 14808-60-7	Total dust: 30 mg/m^3 / %SiO2+2 (OSHA Z-3) Respirable: 10 mg/m^3 / %SiO2+2 (OSHA Z-3) Respirable: 250 mppcf / %SiO2+5 (OSHA Z-3)
Limestone CAS N°: 1317-65-3	Total dust: 15 mg/m^3 (OSHA Z-1) Respirable: 5 mg/m^3 (OSHA Z-1)
Particulates Not Otherwise Regulated (PNOR) :	Total dust: 15 mg/m^3 (OSHA Z-1) Respirable: 5 mg/m^3 (OSHA Z-1)

8.3 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.

8.4 Personal Protective Equipment

Hand protection: Wear gloves and protective clothing to prevent repeated or prolonged skin contact.

Eye protection: Wear eye protection, safety glasses or goggles, to avoid possible eye contact.

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 state, colour, etc.)	Solid
Odour	No data available
Odour threshold	Not applicable
pH	Not applicable
Melting point/freezing point;	Not applicable
Boiling point	Not applicable
Boiling Range	Not applicable
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
Vapor pressure	Not applicable
Vapor density	Not applicable
Density	66 lb/ft^3
Solubility in water	No data available
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	Stable under recommended storage conditions.
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	Avoid heat and sunlight.
10.5 Incompatible materials	Strong acids, alkalis and oxidizing agents.
10.6 Hazardous decomposition products	If heated to the point of decomposition, carbon monoxide, carbon dioxide, oxides of nitrogen and other undefined products of organic combustion may be released.

11. TOXICOLOGICAL INFORMATION

11.1 Measures of Toxicity

Acute toxicity:	Not classified.
Skin corrosion/irritation:	Skin contact may cause irritation.
Serious eye damage/irritation:	Eye contact may cause irritation.
Respiratory or skin sensitisation:	May cause respiratory irritation.
Chronic effects:	This product contains crystalline silica. Excessive inhalation of respirable crystalline silica mays cause silicosis, a progressive, disabling and fatal disease of the lung. Symptoms may include cough, shortness of breath, wheezing and reduced pulmonary function.
11.2 Listed in IARC or considered carcinogen by NTP or OSHA	The international Agency for Research on Cancer (IARC), in Monograph 68 has concluded that crystalline silica inhaled in the form of quartz or cristobalite, from occupational sources is carcinogenic to humans (Group 1). The National Toxicology Program (NTP) classifies crystalline silica as a known carcinogen.
11.3 Further information	Not applicable.

12. ECOLOGICAL INFORMATION

12.1 Toxicity	Not classified

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	Not applicable.

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

Inventories:

US. Toxic Substances Control Act: No data available

NTP, IARC, OSHA:

The international Agency for Research on Cancer (IARC), in Monograph 68 has concluded that crystalline silica inhaled in the form of quartz or cristobalite, from occupational sources is carcinogenic to humans (Group 1). The National Toxicology Program (NTP) classifies crystalline silica as a known carcinogen.

16. OTHER INFORMATION

Indications on the revision

First edition: 27/11/2015

Abbreviations and acronyms used

CAS N°.: Chemical Abstract Service Number
UN N°.: United Nations Number

Methods of evaluation for the classification of mixtures

The classification of the mixture was set based on the regulation (US) HazCom 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.