# 16-0-4

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Date of Issue: 03/29/2018 Version: 1.0

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** 16-0-4

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** No use is specified.

### 1.3. Name, Address, and Telephone of the Responsible Party

**Company**

Fertimix
512 Broadway St N
Jordan, MN 55352
1-800-333-8608
952-492-3377
www.fertimix.net

### 1.4. Emergency Telephone Number

**Emergency Number** : 612-221-0141

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**GHS-US Classification**

Carc. 1A H350
Comb. Dust

Full text of hazard classes and H-statements : see section 16

### 2.2. Label Elements

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)** :

GHS08

**Signal Word (GHS-US)** : Danger

**Hazard Statements (GHS-US)** : May form combustible dust concentrations in air.
H350 - May cause cancer (Inhalation).

**Precautionary Statements (GHS-US)** : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, and eye protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral, Dermal, Inhalation (Dust/Mist))

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name | Product Identifier | % | GHS-US classification |
|---|---|---|---|
| Carbonic acid, calcium salt (1:1) | (CAS-No.) 471-34-1 | 47.5006 - 47.9853 | Not classified |
| Urea | (CAS-No.) 57-13-6 | 40.2640875 - 43.33959 | Comb. Dust |
| Potassium chloride | (CAS-No.) 7447-40-7 | 7.657 - 8.0197 | Not classified |

| | | | |
|---|---|---|---|
| Urea, N,N-methylenebis- | (CAS-No.) 13547-17-6 | <= 1.08675 | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |
| Quartz | (CAS-No.) 14808-60-7 | < 0.72705 | Carc. 1A, H350<br>STOT SE 3, H335<br>STOT RE 1, H372 |
| Biuret | (CAS-No.) 108-19-0 | <= 0.65205 | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |
| Sodium chloride | (CAS-No.) 7647-14-5 | 0.02418 - 0.29822 | Not classified |

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**Symptoms/Injuries:** May cause cancer (Inhalation).

**Symptoms/Injuries After Inhalation:** Dust may be harmful or cause irritation. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Combustible Dust.

**Explosion Hazard:** Dust explosion hazard in air. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

**Reactivity:** Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids. Releases carbon dioxide gas when mixed with acids.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Remove containers from fire area if this can be done without risk. Avoid raising dust.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Amines. Ammonia. Halogenated Compounds. Hydrogen chloride. Potassium oxides. Metal oxides. Urea decomposes to biuret, cyanuric acid, ammonia and carbon dioxide. Hydrogen sulfide is a reaction product. Nitrogen oxides may form in fire conditions. Hydrogen cyanide may be formed. Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C, it can change to a form of crystalline silica known as trydimite, and if crystalline silica (quartz) is heated to more than 1470°C, it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as trydimite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

**Other Information:** Risk of dust explosion.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not handle until all safety precautions have been read and understood. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Use only non-sparking tools. Minimize generation of dust. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

**Precautions for Safe Handling:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Do not breathe dust. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Use appropriate personal protective equipment (PPE).

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Moisture. Fluorinated compounds. Peroxides.

### 7.3. Specific End Use(s)

No use is specified.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

| **Urea (57-13-6)** | | |
|---|---|---|
| **USA AIHA** | WEEL TWA (mg/m³) | 10 mg/m³ |

| Particulates not otherwise classified (PNOC) | | |
|---|---|---|
| **USA ACGIH** | ACGIH TWA (mg/m³) | 3 mg/m³ Respirable fraction<br>10 mg/m³ Total Dust |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 5 mg/m³ Respirable fraction<br>15 mg/m³ Total Dust |

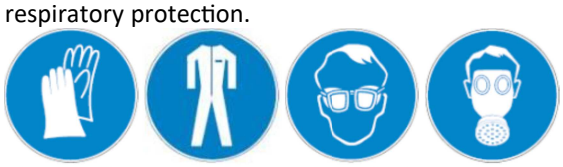
| Carbonic acid, calcium salt (1:1) (471-34-1) | | |
|---|---|---|
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)<br>5 mg/m³ (respirable dust) |

| Quartz (14808-60-7) | | |
|---|---|---|
| **USA ACGIH** | ACGIH TWA (mg/m³) | 0.025 mg/m³ (respirable particulate matter) |
| **USA ACGIH** | ACGIH chemical category | A2 - Suspected Human Carcinogen |
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 0.05 mg/m³ (respirable dust) |
| **USA IDLH** | US IDLH (mg/m³) | 50 mg/m³ (respirable dust) |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 50 µg/m³ |

### 8.2. Exposure Controls

**Appropriate Engineering Controls** : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure all national/local regulations are observed.

**Personal Protective Equipment** : Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing** : Chemically resistant materials and fabrics.

**Hand Protection** : Wear protective gloves.

**Eye and Face Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information** : When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

**Physical State** : Solid

**Appearance** : No data available

**Odor** : No data available

**Odor Threshold** : No data available

**pH** : No data available

**Evaporation Rate** : No data available

**Melting Point** : No data available

**Freezing Point** : No data available

**Boiling Point** : No data available

**Flash Point** : No data available

**Auto-ignition Temperature** : No data available

**Decomposition Temperature** : No data available

| | |
|---|---|
| **Flammability (solid, gas)** | : No data available |
| **Vapor Pressure** | : No data available |
| **Relative Vapor Density at 20°C** | : No data available |
| **Relative Density** | : No data available |
| **Solubility** | : No data available |
| **Partition Coefficient: N-Octanol/Water** | : No data available |
| **Viscosity** | : No data available |

**9.2. Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:** Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids. Releases carbon dioxide gas when mixed with acids.

**10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

**10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Moisture. Fluorinated compounds. Peroxides.

**10.6. Hazardous Decomposition Products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

**Acute Toxicity:** Not classified

| **Urea (57-13-6)** | |
|---|---|
| **LD50 Oral Rat** | 8471 mg/kg |

| **Biuret (108-19-0)** | |
|---|---|
| **LD50 Oral Rat** | 14300 - 15000 mg/kg |

| **Potassium chloride (7447-40-7)** | |
|---|---|
| **LD50 Oral Rat** | 2600 mg/kg |

| **Sodium chloride (7647-14-5)** | |
|---|---|
| **LD50 Oral Rat** | 3 g/kg |
| **LD50 Dermal Rabbit** | > 10000 mg/kg (Species: New Zealand White) |
| **LC50 Inhalation Rat** | > 42 g/m³ (Exposure time: 1 h) |

| **Carbonic acid, calcium salt (1:1) (471-34-1)** | |
|---|---|
| **LD50 Oral Rat** | 6450 mg/kg |

| **Quartz (14808-60-7)** | |
|---|---|
| **LD50 Oral Rat** | > 5000 mg/kg |
| **LD50 Dermal Rat** | > 5000 mg/kg |

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer (Inhalation).

| **Quartz (14808-60-7)** | |
|---|---|
| **IARC group** | 1 |
| **National Toxicology Program (NTP) Status** | Known Human Carcinogens. |
| **OSHA Hazard Communication Carcinogen List** | In OSHA Hazard Communication Carcinogen list. |

| **Silica, crystalline (general form)** | |
|---|---|
| **IARC group** | 1 |
| **National Toxicology Program (NTP) Status** | Known Human Carcinogens. |
| **OSHA Hazard Communication Carcinogen List** | In OSHA Hazard Communication Carcinogen list. |
| **OSHA Specifically Regulated Carcinogen List** | In OSHA Specifically Regulated Carcinogen list. |

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Dust may be harmful or cause irritation. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : Not classified.

| **Urea (57-13-6)** | |
|---|---|
| **LC50 Fish 1** | 16200 - 18300 mg/l (Exposure time: 96 h - Species: Poecilia reticulata) |
| **EC50 Daphnia 1** | 3910 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |

| **Potassium chloride (7447-40-7)** | |
|---|---|
| **LC50 Fish 1** | 1060 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |
| **EC50 Daphnia 1** | 825 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| **LC50 Fish 2** | 750 (750 - 1020) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| **EC50 Daphnia 2** | 880 mg/l (Exposure time: 24 h - Species: Daphnia magna) |

| **Sodium chloride (7647-14-5)** | |
|---|---|
| **LC50 Fish 1** | 5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) |
| **EC50 Daphnia 1** | 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| **LC50 Fish 2** | 12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |
| **EC50 Daphnia 2** | 340.7 (340.7 - 469.2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |
| **NOEC Chronic Fish** | 252 mg/l (Species: Pimephales promelas) |

### 12.2. Persistence and Degradability

| **16-0-4** | |
|---|---|
| **Persistence and Degradability** | Not established. |

### 12.3. Bioaccumulative Potential

| **16-0-4** | |
|---|---|
| **Bioaccumulative Potential** | Not established. |

| **Urea (57-13-6)** | |
|---|---|
| **BCF Fish 1** | < 10 |
| **Log Pow** | -1.59 (at 25 °C) |

| **Sodium chloride (7647-14-5)** | |
|---|---|
| **BCF Fish 1** | (no bioaccumulation) |

| **Carbonic acid, calcium salt (1:1) (471-34-1)** | |
|---|---|
| **BCF Fish 1** | (no bioaccumulation) |

**12.4. Mobility in Soil** No additional information available

### 12.5. Other Adverse Effects

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

| **16-0-4** | |
|---|---|
| **SARA Section 311/312 Hazard Classes** | Health hazard - Carcinogenicity<br>Physical hazard - Combustible dust |

| **Urea (57-13-6)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **Biuret (108-19-0)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **Potassium chloride (7447-40-7)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **Sodium chloride (7647-14-5)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **Carbonic acid, calcium salt (1:1) (471-34-1)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **Quartz (14808-60-7)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

### 15.2. US State Regulations

| **Quartz (14808-60-7)** | |
|---|---|
| **U.S. - California - Proposition 65 - Carcinogens List** | WARNING: This product contains chemicals known to the State of California to cause cancer. |

| **Quartz (14808-60-7)** |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 03/29/2018

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

**GHS Full Text Phrases:**

| | |
|---|---|
| Carc. 1A | Carcinogenicity Category 1A |
| Comb. Dust | Combustible Dust |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT RE 1 | Specific target organ toxicity (repeated exposure) Category 1 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H350 | May cause cancer |
| H372 | Causes damage to organs through prolonged or repeated exposure |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*