# SAFETY DATA SHEET

GROWMARK

## 1. Identification

| | |
|---|---|
| **Product identifier** | **13-0-2 20% XCU KCL W/.125% DIMENSION** |
| **Other means of identification** | Not available. |
| **Recommended use** | Not available. |
| **Recommended restrictions** | Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations. |

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

| | | |
|---|---|---|
| **Company name** | GROWMARK FS LLC. | |
| **Address** | 3150 Stoney Point Road<br>East Berlin, PA 17316<br>United States | |
| **Telephone** | General Assistance | 309-557-6000 |
| **Website** | www.growmark.com | |
| **E-mail** | SDS@growmark.com | |
| **Emergency phone number** | CHEMTREC | 800-424-9300 |

## 2. Hazard(s) identification

| | | |
|---|---|---|
| **Physical hazards** | Not classified. | |
| **Health hazards** | Carcinogenicity | Category 1A |
| **Environmental hazards** | Hazardous to the aquatic environment, acute hazard | Category 2 |
| | Hazardous to the aquatic environment, long-term hazard | Category 2 |
| **OSHA defined hazards** | Not classified. | |

**Label elements**

| | |
|---|---|
| **Signal word** | Danger |
| **Hazard statement** | May cause cancer. Toxic to aquatic life. Toxic to aquatic life with long lasting effects. |
| **Precautionary statement** | |
| **Prevention** | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. |
| **Response** | If exposed or concerned: Get medical advice/attention. Collect spillage. |
| **Storage** | Store locked up. |
| **Disposal** | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| **Hazard(s) not otherwise classified (HNOC)** | None known. |
| **Supplemental information** | 67.3% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 67.3% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. |

## 3. Composition/information on ingredients

**Mixtures**

| Chemical name | Common name and synonyms | CAS number | % |
|---|---|---|---|
| LIMESTONE (CALCIUM CARBONATE) | | 471-34-1 | 50 - < 60 |
| UREA | | 57-13-6 | 20 - < 30 |
| POTASH | | 7447-40-7 | 3 - < 5 |
| SILICA, AMORPHOUS HYDRATED | | 7631-86-9 | 3 - < 5 |
| DIMENSION | | 97886-45-8 | < 1 |
| QUARTZ, RESPIRABLE FRACTION | | 14808-60-7 | < 1 |
| Other components below reportable levels | | | 5 - < 10 |

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed** Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information** IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters** Material can be slippery when wet.

**Fire fighting equipment/instructions** Use water spray to cool unopened containers.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide appropriate exhaust ventilation at places where dust is formed. Keep formation of airborne dusts to a minimum. Do not breathe dust. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value | Form |
|---|---|---|---|
| LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

| Components | Type | Value | Form |
|---|---|---|---|
| QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) | TWA | 0.3 mg/m3 | Total dust. |
| | | 0.1 mg/m3 | Respirable. |
| | | 2.4 mppcf | Respirable. |
| SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9) | TWA | 0.8 mg/m3 | |
| | | 20 mppcf | |

**US. ACGIH Threshold Limit Values**

| Components | Type | Value | Form |
|---|---|---|---|
| QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) | TWA | 0.025 mg/m3 | Respirable fraction. |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components | Type | Value | Form |
|---|---|---|---|
| LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1) | TWA | 5 mg/m3 | Respirable. |
| | | 10 mg/m3 | Total |
| QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) | TWA | 0.05 mg/m3 | Respirable dust. |
| SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9) | TWA | 6 mg/m3 | |

**US. Workplace Environmental Exposure Level (WEEL) Guides**

| Components | Type | Value | Form |
|---|---|---|---|
| UREA (CAS 57-13-6) | TWA | 10 mg/m3 | Total particulate. |

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** If contact is likely, safety glasses with side shields are recommended.

**Skin protection**

**Hand protection** For prolonged or repeated skin contact use suitable protective gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

| | |
|---|---|
| **General hygiene considerations** | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

## 9. Physical and chemical properties

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Solid. |
| **Form** | Solid. |
| **Color** | Not available. |
| **Odor** | Not available. |
| **Odor threshold** | Not available. |
| **pH** | Not available. |
| **Melting point/freezing point** | 270.86 °F (132.7 °C) estimated |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit - lower (%)** | Not available. |
| **Flammability limit - upper (%)** | Not available. |
| **Explosive limit - lower (%)** | Not available. |
| **Explosive limit - upper (%)** | Not available. |
| **Vapor pressure** | 0.000009 hPa estimated |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |
| **Solubility(ies)** | |
| **Solubility (water)** | Not available. |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Other information** | |
| **Density** | 11.61 lbs/gal estimated |
| **Specific gravity** | 1.39 estimated |
| **VOC (Weight %)** | 9.4 % Switzerland estimated |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerization does not occur. |
| **Conditions to avoid** | Contact with incompatible materials. |
| **Incompatible materials** | Acids. Fluorine. |
| **Hazardous decomposition products** | No hazardous decomposition products are known. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Prolonged inhalation may be harmful. |

| | |
|---|---|
| **Skin contact** | No adverse effects due to skin contact are expected. |
| **Eye contact** | Direct contact with eyes may cause temporary irritation. |
| **Ingestion** | Expected to be a low ingestion hazard. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Direct contact with eyes may cause temporary irritation. |

**Information on toxicological effects**

**Acute toxicity**

| Components | Species | Test Results |
|---|---|---|
| LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1) | | |
| **Acute** | | |
| *Oral* | | |
| LD50 | Mouse | 6450 mg/kg |
| | Rat | 6450 mg/kg |
| POTASH (CAS 7447-40-7) | | |
| **Acute** | | |
| *Oral* | | |
| LD50 | Mouse | 383 mg/kg |
| | Rat | 2600 mg/kg |
| *Other* | | |
| LD50 | Mouse | 117 mg/kg |
| | Rat | 39 mg/kg |
| SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9) | | |
| **Acute** | | |
| *Oral* | | |
| LD50 | Mouse | > 15000 mg/kg |
| | Rat | > 22500 mg/kg |
| UREA (CAS 57-13-6) | | |
| **Acute** | | |
| *Oral* | | |
| LD50 | Rat | 8471 mg/kg |
| *Other* | | |
| LD50 | Mouse | 4600 mg/kg |
| | Rat | 5300 mg/kg |

* Estimates for product may be based on additional component data not shown.

| | |
|---|---|
| **Skin corrosion/irritation** | Prolonged skin contact may cause temporary irritation. |
| **Serious eye damage/eye irritation** | Direct contact with eyes may cause temporary irritation. |

**Respiratory or skin sensitization**

| | |
|---|---|
| **Respiratory sensitization** | Not available. |
| **Skin sensitization** | This product is not expected to cause skin sensitization. |
| **Germ cell mutagenicity** | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |

**Carcinogenicity** In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) 1 Carcinogenic to humans.
SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) Known To Be Human Carcinogen.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not available.

**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

| Components | | Species | Test Results |
|---|---|---|---|
| LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1) | | | |
| **Aquatic** | | | |
| Fish | LC50 | Western mosquitofish (Gambusia affinis) | > 56000 mg/l, 96 hours |
| POTASH (CAS 7447-40-7) | | | |
| **Aquatic** | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 83 mg/l, 48 hours |
| Fish | LC50 | Western mosquitofish (Gambusia affinis) | 435 mg/l, 96 hours |
| UREA (CAS 57-13-6) | | | |
| **Aquatic** | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 3910 mg/l, 48 hours |
| Fish | LC50 | Giant gourami (Colisa fasciata) | 5 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**
UREA -2.11

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

| | |
|---|---|
| **Disposal instructions** | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| **Local disposal regulations** | Dispose in accordance with all applicable regulations. |
| **Hazardous waste code** | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| **Waste from residues / unused products** | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| **Contaminated packaging** | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

## 14. Transport information

**DOT**

| | |
|---|---|
| **UN number** | UN3077 |
| **UN proper shipping name** | Environmentally hazardous substances, solid, n.o.s., MARINE POLLUTANT |
| **Transport hazard class(es)** | |
| **Class** | 9 |
| **Subsidiary risk** | - |
| **Label(s)** | 9 |
| **Packing group** | III |
| **Environmental hazards** | |
| **Marine pollutant** | Yes |
| **Special precautions for user** | Read safety instructions, SDS and emergency procedures before handling. |
| **Special provisions** | 8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33 |
| **Packaging exceptions** | 155 |
| **Packaging non bulk** | 213 |
| **Packaging bulk** | 240 |

**IATA**

| | |
|---|---|
| **UN number** | UN3077 |
| **UN proper shipping name** | Environmentally hazardous substance, solid, n.o.s. |
| **Transport hazard class(es)** | |
| **Class** | 9 |
| **Subsidiary risk** | - |
| **Packing group** | III |
| **Environmental hazards** | Yes |
| **ERG Code** | 9L |
| **Special precautions for user** | Read safety instructions, SDS and emergency procedures before handling. |
| **Other information** | |
| **Passenger and cargo aircraft** | Allowed. |
| **Cargo aircraft only** | Allowed. |

**IMDG**

| | |
|---|---|
| **UN number** | UN3077 |
| **UN proper shipping name** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MARINE POLLUTANT |
| **Transport hazard class(es)** | |
| **Class** | 9 |
| **Subsidiary risk** | - |
| **Packing group** | III |
| **Environmental hazards** | |
| **Marine pollutant** | Yes |
| **EmS** | F-A, S-F |
| **Special precautions for user** | Read safety instructions, SDS and emergency procedures before handling. |

| | |
|---|---|
| **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | Not applicable. |

**DOT; IATA; IMDG**


**Marine pollutant**

**General information** DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. Massachusetts RTK - Substance List**

LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)
QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7)
SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9)

**US. New Jersey Worker and Community Right-to-Know Act**

LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)
QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7)
SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)
QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7)
SILICA, AMORPHOUS HYDRATED (CAS 7631-86-9)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

| | |
|---|---|
| QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) | Listed: October 1, 1988 |

**International Inventories**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** Draft version.

**Version #** Draft version.

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.