

**1. Identification**

**Product identifier** 18-0-3 25% XCU 15% BIO 2% FE KCL

**Other means of identification** Not available.

**Recommended use** Not available.

**Recommended restrictions** None known.

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

**Manufacturer**

**Company name** GROWMARK FS LLC.  
**Address** 3150 Stoney Point Road  
 East Berlin, PA 17316  
 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** Not classified.

**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** None.

**Hazard statement** Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention** Avoid release to the environment.

**Response** Collect spillage.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** 38.82% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 38.82% 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	30 - < 40
UREA		57-13-6	30 - < 40
POTASH		7447-40-7	3 - < 5

Chemical name	Common name and synonyms	CAS number	%
Amorphous Silica (total Dust)		112926-00-8	< 0.2
Limestone (calcium Carbonate)		1317-65-3	< 0.2
Crystalline Sio2 (quartz)		14808-60-7	< 0.1
Other components below reportable levels			10 - < 20

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

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. 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.
<b>Methods and materials for containment and cleaning up</b>	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.
<b>Environmental precautions</b>	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

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	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 1317-65-3)	PEL	5 mg/m3	Respirable fraction.
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)	PEL	15 mg/m3	Total dust.
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

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

Components	Type	Value	Form
Amorphous Silica (total Dust) (CAS 112926-00-8)	TWA	0.8 mg/m3	
Crystalline Sio2 (quartz) (CAS 14808-60-7)	TWA	20 mppcf	
		0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Crystalline Sio2 (quartz) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Amorphous Silica (total Dust) (CAS 112926-00-8)	TWA	6 mg/m3	
Crystalline Sio2 (quartz) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Limestone (calcium Carbonate) (CAS 1317-65-3)	TWA	5 mg/m3	Respirable.
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)	TWA	10 mg/m3	Total
		5 mg/m3	Respirable.
		10 mg/m3	Total

#### 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).

#### 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

In case of insufficient ventilation, wear suitable respiratory equipment.

##### 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** 0.00001 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** 11.64 lbs/gal estimated

**Specific gravity** 1.39 estimated

**VOC (Weight %)** 15.2 % 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
Amorphous Silica (total Dust) (CAS 112926-00-8)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	6450 mg/kg
	Rat	6450 mg/kg
POTASH (CAS 7447-40-7)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	383 mg/kg
	Rat	2600 mg/kg
<i>Other</i>		
LD50	Mouse	117 mg/kg
	Rat	39 mg/kg
UREA (CAS 57-13-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	8471 mg/kg
<i>Other</i>		
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**

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Amorphous Silica (total Dust) (CAS 112926-00-8)

3 Not classifiable as to carcinogenicity to humans.

Crystalline SiO<sub>2</sub> (quartz) (CAS 14808-60-7)

1 Carcinogenic to humans.

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

Not listed.

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

Crystalline SiO<sub>2</sub> (quartz) (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.

<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

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

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

<b>UN number</b>	UN3077
<b>UN proper shipping name</b>	Environmentally hazardous substances, solid, n.o.s., MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	9
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	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**

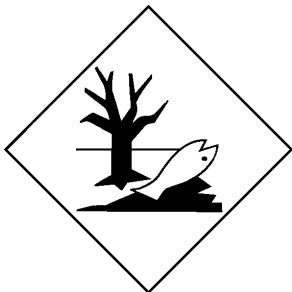
UN number UN3077  
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MARINE POLLUTANT  
Transport hazard class(es)  
Class 9  
Subsidiary risk -  
Packing group III  
Environmental hazards  
Marine pollutant Yes  
EmS F-A, S-F  
Special precautions for user Read safety instructions, 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 - No  
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**

Amorphous Silica (total Dust) (CAS 112926-00-8)  
Crystalline Sio2 (quartz) (CAS 14808-60-7)  
Limestone (calcium Carbonate) (CAS 1317-65-3)  
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)

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

Amorphous Silica (total Dust) (CAS 112926-00-8)  
Crystalline Sio2 (quartz) (CAS 14808-60-7)  
Limestone (calcium Carbonate) (CAS 1317-65-3)  
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)

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

Crystalline Sio2 (quartz) (CAS 14808-60-7)  
Limestone (calcium Carbonate) (CAS 1317-65-3)  
LIMESTONE (CALCIUM CARBONATE) (CAS 471-34-1)

**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**

Crystalline Sio2 (quartz) (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



Country(s) or region	Inventory name	On inventory (yes/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)	No
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.