

SECTION I: IDENTIFICATION

PRODUCT NAME: SOLU-CAL PLUS WITH DETONATION
MANUFACTURERS NAME: GrowMark FS
ADDRESS: EAST BERLIN, PA
EMERGENCY TELEPHONE NUMBER: (800) 426-2827
DATE OF ISSUE: OCTOBER 1, 2018

SECTION II: HAZARDS IDENTIFICATION

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

STOT SE 3	H335
Carc. 1A	H350
Aquatic hazard (acute) 2	H401

Signal Word: Warning

Pictogram:



Hazard Statement: H303 May be harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H350 May cause cancer.
H372 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Precautionary statement 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.

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

Prevention Observe good industrial hygiene practices.

Storage: P405 Store locked up.

Disposal: P501 Dispose of waste and residues in accordance with local authority requirements.

Unclassified Hazards: Not applicable

Toxicity: None

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

SECTION III: COMPOSITION & INGREDIENT INFORMATION

Limestone	1317-65-3	C = 80 % - 99 %
Silicon Dioxide(1)	7631-86-9	C = <1 %
SiO2 Aluminum Oxide, Al2O3	1344-28-1	C = < 1 %
Ferric Oxide, Fe2O3	1309-37-1	C = <1 %
Magnesium Oxide, MgO	1309-48-4	C = 0.25 % -1.5 %
Calcium Oxide, CaO	1305-78-8	C = 0 % - 4.3 %
Sodium Oxide, Na2O	1313-59-3	C = < 1 %
Potassium Oxide K2O	12136-45-7	C = < 1 %
Calcium Carbonate CaCO3	471-34-1	C = 36-100 %
Sodium Salt Lignin	8068-05-1	C = 3 % -5 %
Crude Soybean Oil	8001-22-7	C = < 1.5 %

SECTION IV: FIRST AID INFORMATION

Personal precautions, protective equipment: Wear personal protective equipment

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.

SKIN: Remove contaminated clothing and wash affected area thoroughly after contact with skin. If irritation occurs consult with physician.

EYES: Flush eyes with cool water for 5 minutes, remove contact lenses and then continue flushing for another 15 minutes. Consult physician for treatment advice.

INGESTION: If conscious rinse mouth and dilute with fluids. Consult physician or poison control for further treatment advice

INHALATION: Move person to fresh air and consult physician for further treatment advice.

MOST IMPORTANT SYMPTOMS ACUTE & DELAYED: Eye irritation

IMMEDIATE TREATMENT PROTOCOL: Treat symptomatically until medical treatment is administered.

Bring product label with you when seeking medical treatment. NOTE TO PHYSICIAN : No Specific Antidote. Treatment should be based on symptoms exhibited.

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.

Clean-up procedures

Use mechanical handling equipment.

Clean contaminated surface thoroughly.

Pick up and arrange disposal without creating dust.

Use a suitable vacuum cleaner.

SECTION V: FIRE FIGHTING 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:

- 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.

SECTION VI: ACCIDENTAL RELEASE MEASURES AND DISPOSAL

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent further leakage or spillage if safe to do so. Avoid contamination of water sources and do not allow spill to reach sewers or drains.

LARGE SPILLS: For large spills dike area and absorb liquid with sand or some other absorptive material and place in container. Once absorptive material is removed wash area with soap and water to remove residual material.

SMALL SPILLS: Wipe up with cloth and then wash with soap & water.

Wear protective clothing (shirt, pants, shoes, socks) mop up spill. Dispose of absorptive material and or rinse in accordance with local, state & federal regulations.

REPORTABLE QUANTITY (RQ) UNDER CERCLA: NO

SECTION VII: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not get in eyes, breathe in mist, ingest or allow material to come in contact with clothing or skin. Upon contact with skin, hair or clothing wash affected area with soap and water. Do not use in areas with limited ventilation. Avoid prolonged exposure. Wash hands with soap and water after handling.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in original container with lid tightly secured. Store product in a cool, well ventilated place preferably on a pallet or rack system. Avoid excessive heat & sunlight. To optimize shelf life store product between 40 - 90 degrees F. Do not let product freeze.

INCOMPATIBILITY: Acids, bases, heat sources, reducing agents, disinfectants, biocides

OTHER: Always follow directions outlined on SDS & label.

SECTION VIII: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 ACGIH-Threshold Limit Value (TLV)

Exposure limit values of the components: Calcium carbonate: ACGIH TLV[®] = 10 mg/m³

Respirable quartz dust: ACGIH TLV[®] = 0,05 mg/m³

8.2 OSHA-Permissible Exposure Limit (PEL)

Exposure limit values of the components: Component / CAS	TLV, 8H (OSHA, PEL)
mg/m3	
Quartz (SiO ₂) CAS N°: 14808-60-7	Total dust: 30 mg/m ³ / %SiO ₂ +2 (OSHA Z-3) Respirable: 10 mg/m ³ / %SiO ₂ +2 (OSHA Z-3) Respirable: 250 mppcf / %SiO ₂ +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) Total dust: 15 mg/m ³ (OSHA P0) Respirable: 5 mg/m ³ (OSHA P0)
Particulates Not Otherwise Regulated (PNOR) :	Total dust: 15 mg/m ³ (OSHA Z-1) Respirable: 5 mg/m ³ (OSHA Z-1)

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.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Information of basic physical and chemical properties

Appearance (physical state, colour, etc.)	Multicolor solid
Odour	Odourless

Odour threshold	Not applicable
pH	No data available
Melting point/freezing point;	No data available
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
Vapour pressure	Not applicable
Vapour density	No data available

Density	67 lbs./ft ³
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

* These data points are typical values based on materials tested to date. Color, body and physical data points may vary somewhat from batch to batch since organic and natural ingredients are utilized in the production of this product. These typical values do not constitute a guarantee.

SECTION X: STABILITY AND REACTIVITY INFORMATION

10.1 Reactivity

Contains Limestone which reacts with acids. It forms carbon dioxide (CO₂). This displaces the oxygen in the air in closed spaces. (danger of suffocation)

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

Contact with incompatible materials

10.5 Incompatible materials

Strong oxidizing agents, fluorine, boron trifluoride, chlorine trifluoride.

10.6 Hazardous decomposition products

Limestone ignites on contact with fluorine and is incompatible with acids, ammonium salts and magnesium.

SECTION XI: TOXICITY INFORMATION

11.1 Measures of Toxicity

Acute toxicity:

Limestone: Acute toxicity: LD₅₀ Oral (Rat): > 5,000 mg/kg

Silica:

Acute toxicity: LD₅₀ (Rat): 5,000 mg/kg

(Mouse): >15000 mg/Kg

Ingredients:

Potassium chloride: Acute toxicity: LD₅₀ Oral (Rat): 3,200 mg/kg

No data available

No data available

Product: no data available

Skin corrosion/irritation:

Serious eye damage/irritation:

Respiratory or skin sensitisation:

11.2 Listed in IARC or considered carcinogen by NTP or OSHA

Quartz (SiO₂) CAS N°: 14808-60-7 Group 1 (IARC), Volume 68, 100C

11.3 Further information

This product contains prismatic tremolite (e.g., cleavage fragments) as an impurity. Sufficient exposure to respirable prismatic tremolite dust may cause serious lung problems.

SECTION XII: ECOLOGICAL INFORMATION

12.1 Toxicity

Ingredients:
Silica (quartz):
Toxicity to fish : LC50: > 10,000 mg/l
Exposure time: 96 h Species: *Oncorhynchus mykiss* (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates: EC50: >1000mg/l (Exposure time:48 h) Species: *Daphnia magna* (Water flea)

EC50: 200 mg/l (Exposure time:72h) Species: *Desmodesmus subspicatus* (green algae)

Limestone:

Toxicity to fish

LC₅₀: >10,000 mg/L (Exposure time: 96 Hours)

Species: Algae

Toxicity to daphnia and other aquatic invertebrates: EC50: >1000mg/l (Exposure time:48 h) Species: *Daphnia magna* (Water flea)

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.

SECTION XIII: 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

SECTION XIV: TRANSPORTATION INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated

US SURFACE FREIGHT CLASSIFICATION: Fertilizing Compounds, NOI, Liquid, (NMFC 68140) Class 70

HAZARD CLASS: None (Non Hazardous)

PRIMARY HAZARD LABEL: None

SUBSIDIARY RISK LABEL REQUIREMENT: None

SECTION XV: REGULATORY INFORMATION

NFP HAZARD RATINGS FOR PRODUCT:

Health: 1

Flammability: 0

Instability: 0

HMIS HAZARD RATINGS FOR PRODUCT

Health: 1

Flammability: 0

Reactivity: 0

PPE: 0

SCALE: 0 = Least 1 = Slight 2 = Moderate 3 = Severe 4 = Severe

SARA 311: None of the ingredients are reportable under SARA 311

SARA 312: None of the ingredients are reportable under SARA 312

SARA TITLE III HAZARD CATEGORY: Immediate N, Delayed N, Fire N, Reactive N, Sudden Release of Pressure N

RCRA : This product does not contain any ingredients on RCRA P or U lists of Federal Hazardous Waste

OTHER: None of the ingredients in this material meet the definition of "Hazardous Chemical"

29 CFR 1910.1200

* This product does not contain any ingredients on the Clean Air Act (CAA) list of Hazardous Waste

SECTION XVI: OTHER INFORMATION

TO THE BEST OF OUR KNOWLEDGE THIS INFORMATION IS TRUE AND ACCURATE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL WE DO NOT ASSUME ANY RESPONSIBILITY FOR THE RESULTS OF ITS USE. THIS INFORMATION IS FURNISHED UPON THE CONDITION THAT THE PERSON RECEIVING THIS PRODUCT SHALL MAKE HIS / HER OWN DETERMINATION OF THE SUITABILITY OF THE MATERIAL FOR THEIR PARTICULAR PURPOSE. THIS INFORMATION IS PROVIDED IN GOOD FAITH BUT WITHOUT EXPRESSED OR IMPLIED WARRANTY. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO TAKE APPROPRIATE PRECAUTIONS.