



# **Sil-Guard (0-2-5)**

### Section 1 -- IDENTIFICATION

1.1. Product Identifier

Product name: Sil-Guard 0-2-5 with 7% Potassium Silicate & 2% Phosphite

**Synonym:** Liquid Potassium an

1.2. Recommended Use / Restrictions

**Identified Uses:** For agriculture, turf, ornamentals, trees, crops & hydroponics

Restrictions: N/A

1.3. Supplier Details

**Company:** Growth Products, Ltd.

80 Lafayette Avenue

White Plains, NY 10603-1603 USA

+011 914-428-1316 (9 am - 5 pm EST Mon - Fri)

questions@growthproducts.com

1.4. Emergency Telephone Number

**Emergency Telephone:** 800-222-1222 (American Association of Poison Control Centers)

### Section 2 -- HAZARD(S) IDENTIFICATION

# 2.1. Classification of substance or mixture

Physical Hazards: N/A

Health Hazards (Potential Effects): Acute Tox., Oral, 4 - H302

Skin Corrosion/Irritation 2 - H315 Eve Damage/Irritation 2A - H319

STOT SE 3 - H335

**Target Organs:** Eyes, Skin, Respiratory System & Lungs, Oral

**Environmental Hazards:** Not Classified

2.2. Label Elements

Pictogram:



Signal Word: WARNING!

Hazard Statements: H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation
H335 May cause respiratory irritation

**Precautionary Statements:** P261 Avoid breathing mist/vapours/spray

P264 Wash hands/face/exposed skin thoroughly after handling

P270 Do not eat drink or smoke when using this product

P271 Use only indoors or in well-ventilated area
P280 Wear protective gloves/eye and face protection

P301+P312+P330 IF SWALLOWED: Call a poison center /doctor if you feel

unwell. Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water



**Precautionary Statements** Continued:

# SAFETY DATA SHEET

P304+340 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.

P312 Call a poison center / doctor if you feel unwell

P332+P313 If skin irritation or rash occurs: Get medical advice/attention

P337+P313 If eye irritation persists: Get medical advice/attention

P403+P233+P405 Store in well-ventilated place. Keep container tightly closed.

Store locked up.

P501 Dispose of contents/container in accordance with

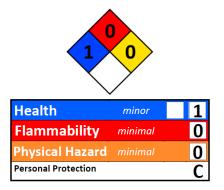
local/regional/national/international regulation.

#### Other Hazards 2.3.

This product does not contain any substance classified as PBT or vPvB

#### **NFPA Ratings**

Health:	1	Slightly hazardous		
Flammability:	0	Will not burn		
Reactivity:	0	Stable		
Specific Hazard:	N/A	Not applicable		
HMIS Ratings				
Health:	1	Minimal hazard		
Flammability:	0	Minimal hazard		
Reactivity:	0	Minimal hazard		



#### Section 3 **COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.2. **Mixtures**

Personal (PPE):

Chemical Name	CAS Registry No.	REACH No.	ENECS No.	Classification
Potassium Carbonate:	584-08-7	0121194963277-33	209-529-3	<u>GHS</u>
				Skin Irrit. 2 - H315
				Eye Irrit. 2 - H319
				STOT SE 3 - H335
Potassium Silicate:	1312-76-1	-	-	<u>GHS</u>
				Skin Irrit. 2 - H315
				Eye Irrit. 2 - H319
Monopotassium phosphite:	13977-65-6	-	1	N/A
Dipotassium phosphite:	13492-26-7	-	ı	N/A
Potassium Humate:	68514-28-3	-	ı	N/A
Phosphoric Acid:	7664-38-2	01-2119485924-24	231-633-2	<u>GHS</u>
'				Skin Corr. 1B - H314
				Met. Corr. 1 - H290

Goggles, Gloves, Protective Apron

#### **Section 4 FIRST-AID MEASURES**

#### 4.1. **Description of first-aid measures**

Inhalation: Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if symptoms are

severe or persist.

Ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting, unless instructed by a healthcare

professional. Rinse mouth thoroughly with water. Get medical attention if any symptoms develop.

Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it **Skin Contact:** 

before reuse. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.



# **SAFETY DATA SHEET**

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

4.2. Most important symptoms and effect, both acute and delayed

**Inhalation:** May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: Ingestion may cause nausea, vomiting and stomach and digestive irritation. There may be soreness and redness of the

mouth and throat.

**Skin Contact:** Skin contact may cause redness and irritation. Prolonged or repeated skin contact can result in the development of

allergy-like skin reactions (e.g., dermatitis, rashes)

**Eye Contact:** There may be irritation and redness. Profuse watering of the eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for doctor: No specific recommendations. If in doubt, get medical attention promptly. Treatment may vary with the condition of

victim and specifics of incident.

**Specific treatments:** Eye bathing equipment should be available on the premises.

#### Section 5 -- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: The product is not flammable. Use fire-extinguishing media suitable for the surrounding

environment. The substance itself does not burn.

Unsuitable extinguishing media: N/A

**Environmental Hazards:** 

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: N/A

5.3. Advice for firefighters

**Protective actions during firefighting:** No specific firefighting precautions known. Irritant, non-flammable, water soluble.

Do not inhale gases created by fire. Do not allow run-off from firefighting to enter

drains or watercourses.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) eye

protection and appropriate protective clothing.

### Section 6 -- ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

**Environmental precautions:** Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3 Methods and material for containment and cleanup

Methods for cleaning up: Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other

noncombustible material. Transfer to a container for disposal. Flush contaminated area with plenty

of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4 Reference to other sections

**Reference to other sections:** For personal protection, see Section 8. For waste disposal, see Section 13.

#### Section 7 -- HANDLING AND STORAGE

#### 7.1. Precautions for Safe Handling

**Using precautions:** Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wash hands thoroughly

after handling.

Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Remove contaminated

clothing and protective equipment before entering eating areas.

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

Storage precautions: Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Keep

away from heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.



# **SAFETY DATA SHEET**

### 7.3. Specific end use(s)

**Specific end use(s):** The identified uses for this product are detailed in Section 1.2.

# Section 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1. Control Parameters

#### Occupational exposure limits

Material	Туре	Value	Source
Monopotassium phosphite (CAS 13977-65-6):	N/A	N/A	N/A
Dipotassium phosphite (CAS 13492-26-7):	N/A	N/A	N/A

# 8.2. Exposure controls

**Protective equipment** 

**General information:** Protective engineering solutions should be implemented, in use, before personal protective equipment is considered.

**Appropriate engineering controls:** Ensure that eyewash stations and safety showers are close to the workstation location. Ensure

adequate ventilation.

**Eye / face protection:** Use chemical splash-type goggles. Face shield.

**Hand protection:** For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. Thoroughly rinse the outside of gloves

with water prior to removal. Inspect regularly for leaks.

**Other skin and body protection:** For body protection wear suitable protective clothing.

**Hygiene measures:** Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin

contamination.

Respiratory protection: If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing

apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (full-face airline respirator (ALR)).

**Environmental exposure controls:** Eye bathing equipment should be available on the premises. Provide quick-drench showers and

washing facilities accessible to areas of use and handling. Have supplies and equipment for

neutralization and running water available.

**Equipment:** 

HMIS Letter:







### Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

# 9.1. Information on basic physical and chemical properties

**Physical State:** Liquid **Evaporation Rate:** Same as water

Color Clear, no color Boiling Point: About 212°F / 100°C

Odor: Slightly acidic odor Freezing Point: -15°F / -26°C

**Weight per Gallon / Liter:** 12.5# @ 70°F / 1.48 Kg @ 21°C **Viscosity:** 5-15 cps @ 21 Degrees C

Storage Life at 70F: >2 years Flash Point/Method: Noncombustible

pH – 21C: 12 Vapor Pressure: N/A

Solubility: Completely miscible Storage Temperature: Above 32°F / 0°C

### Section 10 -- STABILITY AND REACTIVITY

**10.1.** Reactivity Stable

**10.2.** Chemical Stability Stable under normal recommended storage conditions.

10.3. Possibility of Hazardous Reactions N/E

**10.4** Conditions to Avoid Exposure to extreme temperatures and incompatible materials

10.5 Incompatible Materials N/E10.6 Hazardous Decomposition Products N/E





#### Section 11 -- TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

**Toxicological effects:** N/E. No data available.

**Over Exposure, Acute:** Liquid contact may cause slight eye irritation and repeated skin exposure may cause skin irritation.

Over Exposure, Chronic: N/E

Routes of Exposure: Not expected to be harmful under normal conditions of use, however if allowed to become airborne, may

cause irritation of nose throat and lungs. May cause irritation from prolonged or repeated contact.

Acute, Dermal LD<sub>50</sub>: N/E Acute, Oral LD<sub>50</sub>: N/E

**Effects to eyes:** No corneal or iridal effects were noted at dose of 0.1 ml, rabbits.

Effects to Ingestion Non-toxic and non-pathogenic

Effects to skin: Moderate irritation, reversible within 7 days 11.2 Toxological information on main components of the mixture:

Carcinogenicity Assessment: N/A
Mutagenicity Assessment: N/A

ACGIH: None NTP: None IARC: None OSHA: None

### Section 12 -- ECOLOGICAL INFORMATION

### **Ecotoxicity:**

12.1. Toxicity N/A12.2. Persistence and degradability N/E

**12.3. Bioaccumulative potential** Expected to desorb fairly rapidly from soil and not bioaccumulate.

**12.4. Mobility in Soil** This product is biodegradable in soil by microbial activity

12.5. Results of PBT and vPvB Assessment Not listed in EIS PBT List.

12.6. Other Adverse Effects N/E

#### Section 13 -- DISPOSAL CONSIDERATIONS

# 13.1. Waste Treatment Methods

**Disposal methods:** Users should review their operations in terms of the applicable federal/national or local

regulations and consult with appropriate regulatory agencies if necessary before disposing of

waste product, residue and/or container. Product as shipped Section 13.

#### Section 14 -- TRANSPORTATION INFORMATION

**General** Product is a non-regulated material; not flammable, not corrosive, not explosive and not radioactive. In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

Regulatory Information	14.1 UN Number	14.2 Proper Shipping Name	14.3 Class(es)	14.1 Packing Group	14.5 Environmental Hazard	14.6 Special Precautions For User	Additional Information
ADR / RID	Not regulated for	Not	Not	Not	Not classified as	N/A	N/A
Class	transportation	regulated	regulated	regulated	marine pollutant		
ADNR	Not regulated for	Not	Not	Not	Not classified as	N/A	N/A
Class	transportation	regulated	regulated	regulated	marine pollutant		
IMDG	Not regulated for	Not	Not	Not	Not classified as	N/A	N/A
Class	transportation	regulated	regulated	regulated	marine pollutant		
IATA	Not regulated for	Not	Not	Not	Not classified as	N/A	N/A
class	transportation	regulated	regulated	regulated	marine pollutant		





#### Section 15 -- REGULATORY INFORMATION

15.1. Safety, health and Environmental Regulations / Legislation Specific for the Substance or Mixture

**EU legislation:** This product is labeled in accordance EU directives. The Dangerous Substance Directive (Directive

(67/548/EEC, "DSD"), The Dangerous Preparations Directive (Directive 1999/45/EC, "DPD") and the new regulations classification, labeling and packaging of substances and mixtures, Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of

substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of May 2010.

**15.2.** Chemical Safety Assessment: See Section 2.3 for NFPA & HMIS Ratings

Section 16 - OTHER INFORMATION

# REVISED DATE: 22 May 2017

Other Precautions: Read entire label before using

**Abbreviations / Acronyms:** N/E Not Established N/A Not applicable

ACGIH American Conference of Governmental Industrial Hygienists

TLV Threshold Limit Values

PEL Permissible Exposure Limit

REL Recommended Exposure Limit

OSHA Occupational Safety and Health Administration

NIOSH National Institute for Occupational Safety and Health

TWA Time Weighted Average over 8 hours of work

TLV Threshold Limit Value over 8 hours of work

**REL** Recommended Exposure Limit

PEL Permissible Exposure Limit

STEL Short Term Exposure Limit during x minutes

IDLH Immediately Dangerous to Life or Health

TSCA Toxic substance Control Act (United States)

EINECS European Inventory of Existing Commercial Chemical Substances (Europe)

ELINCS European List of Notified Chemical Substances (Europe)

**ENCS** Existing Chemical Substances

IECSC Inventory of Existing Chemical Substances

HMIS Hazardous Material Identification System (American Coatings Association)

NFPA National Fire Protection Association

PBT Persistent Bioaccumulative and Toxic

vPvB Very Persistent and very Bioaccumulative

STOT SE Specific Target Organ Toxicity; Single Exposure

STOT RE Specific Target Organ Toxicity; Repeated Exposure

GER-MAK Germany Maximum Workplace Concentration

DOT Department of Transportation

TDG Transportation of Dangerous Goods (Canada)

ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road

RID Regulations Concerning the International Carriage of Dangerous Goods by Rail (EU)

ADNR Regulation for the Carriage of Dangerous Substances on Waterways (EU)

IMDG International Maritime Dangerous Goods

ICAO International Civil Aviation Organization

IATA International Air Transport Association

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