

United States
Material Safety Data Sheet

Swiss Farms Products Inc.
 3993 Howard Hughes Parkway
 Las Vegas, Nevada 89169-6754
 United States

24 h. EMERGENCY TELEPHONE NUMBER
 CHEMTREC (U.S.) 800-424-9300
 CHEMTREC (International) 1-703-527-3887
 Non-Emergency Calls
 1-937-644-0011

VIGORO WEED & FEEDI 29-0-3

1. Product and company identification

MSDS # : 320000006171
 EPA Registration Number: : 538-270-73327

2. Hazards identification

Physical state : solid [granular solid]

Color : Various

Odor : Phenoxy

Signal word : CAUTION!

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Harmful if absorbed through the skin.
 Harmful by inhalation.
 Causes moderate eye irritation.
 Avoid contact with eyes, skin and clothing.
 Avoid breathing dust.

Emergency Overview
 When using this product, wear long-sleeved shirt, long pants, socks, shoes, and rubber gloves.

Potential acute health effects

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : Toxic if swallowed.

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

Target organs : Contains material which causes damage to the following organs:
 skin
 eyes

Potential chronic health effects : See section 11 for more information.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.
Medical conditions aggravated by over-exposure : None known.
 See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
Urea	57-13-6	>40 - <=70
Potassium chloride (KCl)	7447-40-7	>5 - <=10
Acetic acid, 2-(2,4-dichlorophenoxy)-	94-75-7	>1 - <=3
Quartz (SiO ₂)	14808-60-7	>=0 - <=0.5

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.
Not suitable : None known.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 halogenated compounds
 metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : To protect the environment, do not allow pesticide to enter or run-off into storm drains, drainage ditches gutters or surface waters Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Methods for cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient	Exposure limits
Urea	AIHA WEEL (1999-01-01) Time Weighted Average (TWA) 10 mg/m ³
Acetic acid, 2-(2,4-dichlorophenoxy)-	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m ³ OSHA PEL (1993-06-30) PEL: Permissible Exposure Level

	<p>10 mg/m³ NIOSH REL (1994-06-01) Time Weighted Average (TWA) 10 mg/m³ ACGIH TLV (1996-05-18) Notes: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. Refers to Appendix A -- Carcinogens. 1996 Adoption TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m³</p>
Quartz (SiO ₂)	<p>OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 0.1 mg/m³ Form: Respirable dust NIOSH REL (1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Time Weighted Average (TWA) 0.05 mg/m³ Form: Respirable dust OSHA PEL Z3 (1997-09-03) Notes: The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable. division by %SiO₂+5 Time Weighted Average (TWA) Form: Respirable OSHA PEL Z3 (1997-09-03) Notes: Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector. The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m³ in the table for coal dust is 4.5 mg/m³. division by %SiO₂+2 Time Weighted Average (TWA) 10 mg/m³ Form: Respirable OSHA PEL Z3 (1997-09-03) Notes: division by %SiO₂+2 Time Weighted Average (TWA) 30 mg/m³ Form: Total dust ACGIH TLV (2005-12-09) Notes: Suspected human carcinogen. TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 0.025 mg/m³ Form: Respirable fraction; means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.</p>

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous

- substances will also be required.
- Engineering measures** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : Protective eyewear is not required, but may be used in situations where contact is expected.
- Skin** : No special protective clothing is required.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : solid [granular solid]
- Flash point** : Not Applicable
- Burning time** : Not Applicable
- Auto-ignition temperature** : Not Applicable
- Flammable limits** : Not Applicable
- Density** :
- Color** : Various
- Odor** : Phenoxy
- pH** : Not Applicable
- Boiling/condensation point** : Not Applicable
- Melting/freezing point** : Not Applicable
- Relative density** : Not Applicable
- Vapor pressure** : Not Applicable
- Vapor density** : Not Applicable
- Volatility** : Not Applicable
- Odor threshold** : Not Applicable
- Evaporation rate** : Not Applicable
- Viscosity** : Not Applicable

Solubility : Not Applicable
Solubility in water : Not Applicable

10. Stability and reactivity

Chemical stability : The product is stable.
Conditions to avoid : No specific data.
Incompatible materials : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Urea	LD50 Oral	Rat	8,471 mg/kg	-
Potassium chloride (KCl)	LD50 Oral	Rat	2,600 mg/kg	-
2,4-D (ISO)	LD50 Oral	Rat	> 300 mg/kg	-
2,4-D (ISO)	LD50 Dermal	Rat	1,500 mg/kg	-
2,4-D (ISO)	LD50 Dermal	Rabbit	> 2,000 mg/kg	-

Conclusion/Summary Very low toxicity to humans or animals.

Irritation/Corrosion

Skin Not available.
 Eyes Moderate
 Respiratory Not available.

Sensitizer

Conclusion/Summary Skin Not sensitizing - based on the individual components.
 Respiratory Not sensitizing - based on the individual components.

Chronic toxicity

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Conclusion/Summary	No known significant effects or critical hazards.			

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
2,4-D (ISO)	A4					
Quartz (SiO ₂)	A2			+	Proven	

Mutagenicity

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Conclusion/Summary	No known significant effects or critical hazards.			

Reproductive toxicity

Conclusion/Summary

No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity : Toxic to fish and aquatic invertebrates and may adversely affect non-target plants.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Acetic acid, 2-(2,4-dichlorophenoxy)-			
	Acute LC50 24.5 mg/l Fresh water	Fish - Cutthroat trout	4 d
	Acute EC50 25.9 mg/l Fresh water	Aquatic plants - Green algae	4 d

Conclusion/Summary : No known significant effects or critical hazards.

Persistence/degradability

Conclusion/Summary : No known significant effects or critical hazards.

Partition coefficient: n-octanol/water : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information**Regulatory**

information	UN no.	Proper shipping name	Class	PG*	Note
DOT		Not Regulated			
IATA (C)		Not Regulated			
IATA (P)					
IMDG		Not Regulated			
TDG		Not Regulated			
PG* : Packing group					

15. Regulatory information**United States**

U.S. Federal regulations : **United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.
United States - TSCA 8(a) - Inventory update rule (IUR): Not determined
SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Urea: Acu, Del Potassium chloride (KCl): Acu, Del Acetic acid, 2-(2,4-dichlorophenoxy)-: Acu, Del

United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Listed Acetic acid, 2-(2,4-dichlorophenoxy)-

United States inventory (TSCA 8b) : All components are listed or exempted.

State regulations

Massachusetts : The following components are listed: Acetic acid, 2-(2,4-dichlorophenoxy)-

New York : None of the components are listed.

New Jersey : The following components are listed: Acetic acid, 2-(2,4-dichlorophenoxy)- Quartz (SiO2)

Pennsylvania : The following components are listed: Acetic acid, 2-(2,4-dichlorophenoxy)- Quartz (SiO2)

International regulations

Canada inventory : At least one component is not listed.

International lists : **Australia inventory (AICS):** At least one component is not listed.
Taiwan inventory (CSNN): Not determined.
Japan inventory: At least one component is not listed.
China inventory (IECSC): At least one component is not listed.
Korea inventory: At least one component is not listed.
New Zealand Inventory of Chemicals (NZIoC): At least one component is not listed.
Philippines inventory (PICCS): At least one component is not listed.
Malaysia Inventory (EHS Register): Not determined.

16.Other information

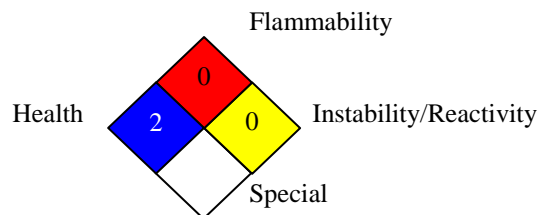
Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	0
Physical hazards	0

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The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.):



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