



1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name Sterling

Other means of identification

N/A

Details of the supplier of the safety data sheet

Company Name Revolution 5 Agriculture
#1-6285-205st
Langley, B.C. Canada V2Y 1N7
604-427-3101

Emergency telephone number

Emergency Telephone 604-768-5602

2. HAZARDS IDENTIFICATION

GHS Classification

STOT SE, Category 3
Acute Toxicity, Category 4
Eye Irritation, Category 2A
Skin Irritation, Category 2
Aquatic Acute, Category 1
Aquatic Chronic, Category 1

GHS Label Elements

Hazard Pictogram:



Signal Word:
DANGER

Hazard Statements:

H 302	Harmful if swallowed
H 315	Causes skin irritation
H 319	Causes serious eye irritation
H 335	May cause respiratory irritation
H 400	Very toxic to aquatic life
H 410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264+P265 Wash skin thoroughly after handling. Do not touch eyes.
 P270 Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release to the environment.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
 P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P319: Get medical help if you feel unwell.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P330 Rinse mouth.
 P332 + P317: If skin irritation occurs: Get medical help.
 P337 + P313 If eye irritation persists: Get medical advice/attention.
 P362: Take off contaminated clothing and wash before reuse.
 P391: Collect spillage.

Storage:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Classification
Potassium iodate	7758-05-6	0.1%	Ox. Sol. 2 H272 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335
Copper Sulphate Pentahydrate	7758-99-8	1-2%	Acute Tox. 4 H302 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

4. FIRST AID MEASURES

First aid measures

General advice Immediate medical attention is required.

Skin Contact Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye contact Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

Inhalation Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

Self-protection of the first aider Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burn of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dike far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Incompatible materials Incompatible with strong acids and bases. Incompatible with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Exposure guidelines noted for ingredient(s).

Ingredients	CAS	Values	Control Parameters	Update	Basis	Form of Exposure
None Applicable						

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance Opaque

Color Burgundy

Odor Chemical

Odor threshold No Information available

Property Values Remarks • Method pH 3.5

Specific Gravity 1.1

Viscosity No Information available

Melting point/freezing point No Information available

Flash point Above 200°F

Boiling point / boiling range ≥ 100 °C / 212 ° F (at 760 mm Hg)

Evaporation rate No Information available

Flammability (solid, gas) No data available

Flammability Limits in Air

Upper flammability limit: No Information available

Lower flammability limit: No Information available

Vapor pressure No Information available

Vapor density No Information available

Water solubility Complete

Partition coefficient No Information available

Autoignition temperature No Information available

Decomposition temperature No Information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Product Information:

Toxicology Assessment

Further information : No further data available.

Test result

Acute oral toxicity : Acute toxicity estimate: 956.99 mg/kg
Method: Calculation method

Carcinogenicity:

IARC : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

TOXICOLOGY DATA FOR THE INGREDIENTS:

Test result

Acute oral toxicity :

Skin irritation :

Eye irritation :

Sensitization : Result: Not sensitizing.
Method: OECD Test Guideline 429

Germ cell mutagenicity
Genotoxicity in vitro : Ames test
Result: negative
Method: OECD Test Guideline 471

Micronucleus test
Result: Does not induce structural chromosome aberrations.
Method: OECD Test Guideline 487

In vitro gene mutation study in mammalian cells
Information given is based on data obtained from similar Substances.

Carcinogenicity : Species: Rat
Application Route: Oral
Result: Not carcinogenic to laboratory animals.
Information given is based on data obtained from similar substances.
Reproductive toxicity/Fertility : Species: Rat

Reproductive toxicity/Development/Teratogenicity
: Species: Rat

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological information: None known.

Further information on ecology

Hazardous to the ozone layer

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

INGREDIENTS:

Test result

Component:

Elimination information (persistence and degradability)

Bioaccumulation : Not expected considering the low log Pow value.

Mobility : No test results

Biodegradability : Not readily biodegradable, but will degrade after a longer Period.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

International Regulation

ADR

Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Further information for transport

Not classified as dangerous in the meaning of transport regulations.

Domestic regulation

49 CFR

Not regulated as a dangerous good

TDG

15. REGULATORY INFORMATION

Notification status

CH INV : YES. On the inventory, or in compliance with the inventory

TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL : YES. All components of this product are on the Canadian DSL.

AICS : YES. On the inventory, or in compliance with the inventory

NZIoC : YES. On the inventory, or in compliance with the inventory

ENCS : NO. Not in compliance with the inventory
ISHL : NO. Not in compliance with the inventory
KECI : YES. On the inventory, or in compliance with the inventory
PICCS : YES. On the inventory, or in compliance with the inventory
IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviations, see section 16.

TSCA list : Not relevant

OSHA Hazards : Combustible dust, Harmful by ingestion., Moderate eye irritant

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

16. OTHER INFORMATION

REACH 1907/2006 (EU)

CH INV Switzerland. New notified substances and declared preparations

TSCA United States TSCA Inventory

DSL Canadian Domestic Substances List (DSL)

AICS Australia Inventory of Chemical Substances (AICS)

NZIoC New Zealand. Inventory of Chemical Substances

ENCS Japan. ENCS - Existing and New Chemical Substances Inventory

ISHL Japan. ISHL - Inventory of Chemical Substances

KECI Korea. Korean Existing Chemicals Inventory (KECI)

PICCS Philippines Inventory of Chemicals and Chemical Substances (PICCS)

IECSC China. Inventory of Existing Chemical Substances in China (IECSC)

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Revision Note

No Information available

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.

End of Safety Data Sheet