



Safety Data Sheet

Issue Date: 20-Jan-2023

Revision Date: 19-Jun-2024

Version 2

1. IDENTIFICATION

Product identifier

Product Name Soraduo A

Other means of identification

SDS # ADAMA-345-CA
Synonyms None
Registration Number(s) 34155 (Pest Control Products Act)

Recommended use of the chemical and restrictions on use

Recommended Use Fungicide
Uses Advised Against No information available

Details of the supplier of the safety data sheet

Initial supplier identifier

ADAMA Agricultural Solutions Canada Ltd.
300-191 Lombard Avenue
Winnipeg, Manitoba R3B 0X1
1-855-264-6262

Emergency telephone number

Emergency Telephone For fire, spill and/or leak contact INFOTRAC:
1-800-535-5053 (North America) 1-352-323-3500 (International)
For medical emergencies and health/safety inquiries, contact ProPharma Group:
1-877-250-9291

2. HAZARDS IDENTIFICATION

Emergency Overview This chemical is a product registered by the Canadian Pest Control Products Act and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-PCPA registered chemicals. Please see Section 15 for additional information. This product has been classified according to Canada's Hazardous Product Regulations (WHMIS 2015).

Appearance Yellow liquid

Physical state Liquid

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

Hazard statements

Harmful if swallowed
 Harmful if inhaled
 Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of water and soap
 Take off contaminated clothing and wash it before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 Call a POISON CENTER or doctor if you feel unwell
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Acetophenone	98-86-2	31-34	-	-
Prothioconazole	178928-70-6	20-26	-	-
2-Pyrrolidinone, 1-octyl-	2687-94-7	10-15	-	-

4. FIRST AID MEASURES

Description of first aid measures**General advice**

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical attention.

Skin contact	In case of contact, immediately wash skin with soap and water or water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult. If breathing has stopped, give artificial respiration. Seek medical advice. Seek medical attention for further treatment.
Ingestion	Rinse mouth. Drink plenty of water. Call a physician or poison control center immediately.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms	Harmful if swallowed. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO ₂ , water spray or alcohol-resistant foam.
Unsuitable extinguishing media	Not determined.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Smoke, fumes or vapors, and oxides of carbon.
Explosion Data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
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Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so. Dike far ahead of spill: use dry sand to contain the flow of material.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Transfer contaminated absorbent, soil, and other materials to containers for disposal. For waste disposal, see section 13 of the SDS.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling	Use personal protective equipment as required. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Use only with adequate ventilation. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Open and handle container with care.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Protection from freezing is recommended. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Keep/store only in original container and out of direct sunlight. Do not use food or drink containers for mixing or storage. Keep away from heat, sparks and open flame. Keep away from food, drink, seeds and animal feeding stuffs. Store above 0°C.
Incompatible materials	None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Limits**

Chemical name	Canada - Alberta - Occupational Exposure Limits - Ceilings	Canada - British Columbia - Occupational Exposure Limits - Ceilings	Canada - Ontario - Occupational Exposure Limits - Ceilings	Quebec
Acetophenone 98-86-2	TWA: 10 ppm TWA: 49 mg/m ³	TWA: 10 ppm	TWA: 10 ppm	TWA: 10 ppm TWA: 49 mg/m ³

Appropriate engineering controls

Engineering controls	Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Use splash goggles or face shield when contact may occur.
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Skin and body protection	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Viton or other impervious gloves are required. Long-sleeved shirt, long pants, socks and shoes are suggested as the minimum work clothes requirement.
Respiratory protection	Ensure adequate ventilation, especially in confined areas. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke while using this product. Promptly remove all contaminated clothing and wash it before reuse. Wash or discard contaminated clothing. Discard contaminated leather items. Wash face, hands and any exposed skin area thoroughly after handling. Discard clothing and other absorbent materials that have been soaked or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washable products, use detergent and hot water. Keep and wash PPE separately from other clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Yellow liquid
Color	Yellow
Odor	Not determined
Odor Threshold	Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.5-7.5 (1% aqueous solution)	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flash point	94.4°C / 201.9°F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	Not determined	
Vapor Density	No data available	
Relative Density	1.03-1.13 g/mL	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Decomposition temperature	Not determined	
Kinematic viscosity	26 mm ² /s	
Dynamic Viscosity	Not determined	
Explosive properties	Not an explosive.	
Oxidizing properties	Not an oxidizer.	

Other information

Softening Point	Not determined
Molecular weight	Not determined
VOC content	No data available
Liquid Density	Not determined
Bulk density	Not determined

10. STABILITY AND REACTIVITY

Reactivity	Not reactive under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames and sparks. Extreme temperatures and direct sunlight. Exposure to air or moisture over prolonged periods. Refer to Section 7.
Incompatible materials	None known.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye contact	Avoid contact with eyes.
Skin contact	Avoid contact with skin.
Inhalation	Harmful if inhaled.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	>300
ATEmix (dermal)	7,517.10
ATEmix (inhalation-dust/mist)	315.24

Unknown acute toxicity No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetophenone 98-86-2	= 900 mg/kg (Rat)	= 3300 mg/kg (Rat)	> 2.130 mg/L (Rat) 8 h
Prothioconazole 178928-70-6	> 6200 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5 mg/L (Rat) 4 h
2-Pyrrolidinone, 1-octyl- 2687-94-7	= 2050 mg/kg (Rat)	> 4000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Carcinogenicity	Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetophenone 98-86-2	-	LC50: =162mg/L (96h, Pimephales promelas) LC50: =155mg/L (96h, Pimephales promelas)	EC50 = 15.5 mg/L 15 min	-

Persistence/Degradability No information available.

Bioaccumulation No information available.

Mobility

Chemical name	Partition coefficient
Acetophenone 98-86-2	1.65
2-Pyrrolidinone, 1-octyl- 2687-94-7	4.15

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances, including 49 CFR 171.4(C)(2) and TDG 1.45.1

DOT UN3082, Environmentally hazardous substance, liquid, n.o.s. (1-Octyl-2-pyrrolidinone), 9, III

TDG UN3082, Environmentally hazardous substance, liquid, n.o.s. (1-Octyl-2-pyrrolidinone), 9, III

IATA UN3082, Environmentally hazardous substance, liquid, n.o.s. (1-Octyl-2-pyrrolidinone), 9, III

IMDG UN3082, Environmentally hazardous substance, liquid, n.o.s. (1-Octyl-2-pyrrolidinone), 9, III

15. REGULATORY INFORMATION

REGULATORY INFORMATION

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AIC
Acetophenone	X	X	X	X	X	X	X	X
Prothioconazole	X							
2-Pyrrolidinone, 1-octyl-	X	X	X	X	X		X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA

Health hazards -

Flammability 1

Instability -

Special hazards -

HMIS

Health hazards -

Flammability 1

Physical hazards -

Personal Protection Not determined

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA

TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling

Maximum limit value

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Skin designation

Revision Date:

19-Jun-2024

Revision Note:

Regulatory update.

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