

MATERIAL SAFETY DATA SHEET

Pramitol 5PS Herbicide, EPA Reg. No. 66222-23

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1. IDENTIFICATION

Product name: **Pramitol 5PS Herbicide**

Chemical name of active ingredient(s): Prometon (5%): 2,4-bis(isopropylamino)-6-methoxy-s-triazine (CAS #1610-18-0)
Simazine (0.76%): 6-Chloro-N,N'-diethyl-1,3,5-triazine-2,4-diamine (CAS #122-34-9)
Sodium Chlorate (39.8%)(CAS #7775-09-9)
Sodium Metaborate (40.0%)(CAS #1303-96-4)

Chemical Class: Prometon: Triazine Herbicide
Simazine: Triazine Herbicide
Sodium Chlorate: Herbicide
Sodium Metaborate: Inorganic salt

Manufacturer/Registrant: Makhteshim-Agan of North America
551 Fifth Avenue, Suite 1100
New York, NY 10176
Phone: 212-661-9800
Phone: 800-535-5053

For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 877-250-9291

For medical emergencies and health and safety inquiries, contact Product Safety Resources:

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Prometon (5%)	N/E	N/E	N/E	No
Simazine (0.76%)	N/E	N/E	N/E	No
Sodium Chlorate (39.8%)	N/E	N/E	10 mg/m ³ (total dust)*	No
Sodium Metaborate (40%)	10 mg/m ³	5mg/m ³	N/E	No

N/E=Not Established

*recommended by manufacturer

3. HAZARDS IDENTIFICATION

Notes to Physician

- There is no specific antidote if product is ingested.
- Give a saline laxative and supportive therapy.
- Monitor blood for evidence of hemodialysis and methemoglobinemia.
- Hemodialysis may be required to remove sodium chlorate.
- Barbiturates may be used to control convulsions.
- Treat symptomatically.
- Contact with eyes may require specialized ophthalmologic attention.
- An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant.
- Do not induce emesis.

Symptoms of Acute Exposure

Exposure may cause substantial but temporary eye irritation. If swallowed, mucous membranes may be damaged, resulting in breathing difficulty, abdominal pain, nausea, vomiting, gastritis, weakness, or diarrhea. Ingestion of a large amount can lead to cyanosis and hematuria (blood in the urine).

Hazardous Decomposition Products

Reaction of sodium chlorate with acids releases chlorine and chlorine dioxide vapors which may ignite or explode spontaneously.

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Physical Properties

Appearance: White Pellets

Odor: Odorless

Unusual Fire, Explosion and Reactivity Hazards

An active ingredient of this product can react with other materials to cause fire or explosive mixtures. In this formulation the active ingredients are neutralized.

4. FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTES TO PHYSICIAN:

- Probable mucosal damage may contraindicate the use of gastric lavage. Treat for circulatory shock, respiratory depression, and convulsions, if needed.
- There is no specific antidote if product is ingested.
- Give a saline laxative and supportive therapy.
- Monitor blood for evidence of hemodialysis and methemoglobinemia.
- Hemodialysis may be required to remove sodium chlorate.
- Barbiturates may be used to control convulsions.
- Contact with eyes may require specialized ophthalmologic attention.
- An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant.
- Do not induce emesis.

Medical Condition(s) Likely to be Aggravated By Exposure

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable

FLAMMABLE LIMITS (%in Air):

LFL: %, UFL: % Not Applicable

AUTOIGNITION TEMPERATURE: Not Available

FLAMMABILITY: Not Flammable

EXTINGUISHING MEDIA: Use dry chemical, foam, or CO₂

UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS: An active ingredient of this product can react with other materials to cause fire or explosive mixtures. In this formulation the active ingredients are neutralized.

FIRE-FIGHTING EQUIPMENT: Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes, or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated.

6. ACCIDENTAL RELEASE MEASURES

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ACTION TO TAKE FOR SPILLS/LEAKS: Wear chemical goggles or a full-face shield, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95-99.97% as appropriate for the size distribution of dusts present. For small spills, sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

Store material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

INGESTION: Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

EYE PROTECTION: To avoid eye contact, wear chemical goggles or full-face shield.

SKIN PROTECTION: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

RESPIRATORY PROTECTION: To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95-99.97% as appropriate for the size distribution of dusts present.

APPLICATORS AND ALL OTHER HANDLERS: Please refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: Not Applicable

MELTING POINT: 89-91°C

VAPOR PRESSURE:

Prometon: 3.10E-06 mbar @ 20°C

Simazine: 2.94E-03 mPA @ 25°C

Sodium Chlorate: Not Applicable

Sodium Metaborate: Not Available

SOLUBILITY IN WATER:

Prometon: 0.7 g/L @ 22°C

Simazine: 6.2 mg/l @ 22°C

Sodium Chlorate: 49.5% @ 20°C

Sodium Metaborate: 5.8% @ 20°C

SPECIFIC GRAVITY/DENSITY: 56.60 lbs./cu.ft.

pH: 10 (1% solution in water) @ 25°C

APPEARANCE: White Pellets

ODOR: Odorless

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Combustibles, Heat, Acids, Organic Compounds, Phosphorous, Sulfur, Sulphides, Ammonium Compounds, and Powdered Metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Reaction of sodium chlorate with acids releases chlorine and chlorine dioxide vapors which may ignite or explode spontaneously.

HAZARDOUS POLYMERIZATION: Will not occur.

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion: slightly toxic
Oral LD₅₀ (Rat) 3,396 mg/kg body weight

Dermal: slightly toxic
Dermal LD₅₀ (Rabbit) >2,020 mg/kg body weight

Inhalation: Slightly toxic
Inhalation LC₅₀ (Rat) >3.727 mg/l air-4 hours

Eye Contact: mildly irritating (Rabbit)

Skin Contact: non-irritating (Rabbit)

Skin Sensitization: Not a sensitizer (Guinea Pig)

Mutagenic Potential

Prometon: None observed
Simazine: None observed:
Sodium Chlorate: Mutational effects in bacteria and insects
Sodium Metaborate: None observed

Reproductive Hazard Potential

Prometon: None observed
Simazine: None observed
Sodium Chlorate: None observed
Sodium Metaborate: Decreased sperm production and testicular atrophy (males)
Developmental effects and weight loss (fetus)

Chronic/Subchronic Toxicity Studies

Prometon: Liver effects (mice)
Simazine: Decreased survival at high doses (rats)
Sodium Chlorate: Effects in the blood (hemolysis) and kidneys (hematuria, albuminuria, anuria). Ingestion of small amounts may cause weight loss and loss of appetite.
Sodium Metaborate: None observed

Carcinogenic Potential

Prometon: None observed
Simazine: Increased incidence of mammary tumors (female Sprague-Dawley rats) sex and species specific effect.
Sodium Chlorate: None observed
Sodium Metaborate: None observed

Other Toxicity Information

Not Available

Toxicity of Other Components

Target Organs

Active Ingredients:
Prometon: Liver
Simazine: Mammary Gland
Sodium Chlorate: Blood and Kidneys
Sodium Metaborate: Testes
Inert Ingredients Not Available

12. ECOLOGICAL INFORMATION

Summary of Effects

Prometon: Practically nontoxic to birds and slightly toxic to aquatic invertebrates and fish.

Simazine: Practically nontoxic to birds and aquatic invertebrates. Slightly toxic to fish.

Sodium Chlorate: Not Available.

Sodium Metaborate: Harmful to boron sensitive plants in high quantities.

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Eco-Acute Toxicity

Prometon: Rainbow Trout 96-hour LC₅₀ 19.6 mg/L
Bluegill Sunfish 96-hour LC₅₀ 41.5 mg/L
Daphnia magna 48-hour LC₅₀ 37.5 mg/L
Bobwhite Oral LD₅₀ >2,264 mg/kg
Mallard Oral LD₅₀ 3,158 mg/kg
Bobwhite 8-day Dietary LC₅₀ >5,620 ppm
Mallard 8-day Dietary LC₅₀ >5,620 ppm

Simazine: Rainbow Trout 96-hour LC₅₀ 70.5 mg/L
Bluegill Sunfish 96-hour LC₅₀ 16 mg/L
Daphnia magna 48-hour LC₅₀ >100 mg/L
Mallard Oral LD₅₀ >4,640 mg/kg
Bobwhite 8-day Dietary LC₅₀ >20,000 ppm
Mallard 8-day Dietary LC₅₀ >10,000 ppm

Sodium Chlorate: Not Available

Sodium Metaborate: Rainbow Trout 24-day LC₅₀ 150 mg B/L

Eco-Chronic Toxicity

Prometon: Fish (Fathead minnow) Early Life Stage MATC 13.7 mg/L
Invertebrate (Daphnia magna) Life Cycle MATC 4.83 mg/L
Mallard Reproduction NOEC 50 ppm
Bobwhite Reproduction NOEC 175 ppm

Simazine: Invertebrate (Daphnia magna) Life Cycle MATC 0.07 mg/L
Mallard Reproduction NOEC 150 ppm
Bobwhite Reproduction NOEC 100 ppm

Sodium Chlorate: Not Available

Sodium Metaborate: Not Available

Environmental Fate

Prometon: Not Available

Simazine: Not Available

Sodium Chlorate: Not Available

Sodium Metaborate: Naturally occurring and ubiquitous in the environment

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification: Not Applicable; No label or Placard Required

B/L Freight Classification: Compound; Tree or Weed Killing (Herbicide), Dry, N.O.I.B.N.

International Transportation: Not Applicable

15. REGULATORY INFORMATION

SARA Title III Classification

Section 311/312:

Acute Health Hazard

Chronic Health Hazard

Section 313 Chemical(s)

Simazine (0.76%) (CAS No. 122-34-9)

Proposition 65

Not Application

CERCLA Reportable Quantity

None

RCRA Classification

Not Applicable

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TSCA Status
Exempt from TSCA

16. OTHER INFORMATION:

NFPA Hazard Ratings

Health:	2	0	Least
Flammability:	0	1	Slight
Reactivity:	0	2	Moderate
		3	High
		4	Severe

Revised Date: 8-4-00; Supercedes 2-14-00 and 8/7/98

This MSDS is applicable to all product produced after February 14, 2000.

The information and recommendations herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

For additional information about this product, contact Makhteshim-Agan of North America, 551 Fifth Avenue, Suite 1100, New York, NY 10176, (212) 661-9800