1. IDENTIFICATION

Product name:	**Parazone® 3SL**
Chemical name of active ingredient(s):	Paraquat dichloride: (1,1'-dimethyl-4,4'-bipyridinium dichloride)
Manufacturer/Registrant:	Makhteshim Agan of North America, Inc. 4515 Falls of Neuse Road, Suite 300 Raleigh, NC 27609 Phone: 919-256-9300
For fire, spill, and/or leak emergencies, contact Infotrac:	Phone: 1-800-535-5053
For medical emergencies and health and safety inquiries, contact Prosar:	Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	%	OSHA/PEL	ACGIH/TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Paraquat dichloride	1910-42-5	43.8	0.5 mg/m3 (TWA; respirable)	NA	NA	NA

NA=not available

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER-POISON May be fatal if swallowed. Fatal if inhaled. Do not breathe spray mist. Wear a dust/mist respirator as specified in the PPE section of this label. Causes irreversible eye damage. Wear protective eyewear. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nosebleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

PHYSICAL PROPERTIES

Appearance: Dark green liquid
Odor: Strong pungent odor

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride; possible trace amounts of phosgene, nitrogen oxides, ammonia and other toxic and noxious fumes.

PHYSICAL AND CHEMICAL HAZARDS: This product is mildly corrosive to aluminum and produces hydrogen gas, which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. This product is compatible with high density polyethylene and rubber lined steel containers.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No specific conditions are known which may be aggravated by exposure to this product.

4. FIRST AID

FIRST AID **Contains Paraquat, a Bipyridylium Herbicide**	
IF SWALLOWED:	• SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an adsorbent such as activated charcoal, bentonite, or Fuller's Earth. • Call a poison control center or doctor immediately for treatment advice • Do not give anything by mouth to an unconscious person • Have person sip glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor.
IF INHALED:	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat.

	• If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for further treatment advice.
IF IN EYES:	• 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:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes • 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. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information. **NOTE TO PHYSICIAN:** Administer either activated charcoal (100 g for adults or 2 g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat, however contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.	

5. FIRE FIGHTING MEASURES

FLASHPOINT: >100^{o}C
FLAMMABLE LIMITS (% in air): Not applicable.
AUTOIGNITION TEMPERATURE: >625^{o}C (1157^{o}F)

FIRE FIGHTING PROCEDURES: 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. Water runoff can causes environmental damage. If water is used to fight fire, dike and collect runoff.

UNUSUAL FIRE, EXPOSURE AND REACTIVITY HAZARDS: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

SUITABLE EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, or foam.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride, possible trace amounts of phosgene, nitrogen oxides, ammonia and other toxic and noxious fumes.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear suitable protective clothing.

ENVIRONMENTAL PRECAUTIONS: Do not discharge into drains or the environment.

ACTION TO TAKE FOR SPILLS/LEAKS: Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

Untreated spilled material can dry to a highly irritating dust.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN STORAGE: Keep only in the original container. Keep in cool, dry, well-ventilated place away from direct sunlight. Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.

PRECAUTIONS TO BE TAKEN IN HANDLING: Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

STORAGE TEMPERATURE (MIN/MAX): Store above 32°F(0°C).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATION AND ON-FARM APPLICATIONS, CONSULT THE PRODUCT LABEL.

- Long-sleeve shirt and long pants
- Shoes plus socks
- Protective eyewear or chemical safety glasses with side shields or chemical goggles
- Dust/mist NIOSH-approved respirator with any N, R, P, or HE filter
- Chemical Resistant Gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton

ADDITIONAL PROTECTIVE MEASURES: Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.
ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Dark green liquid
ODOR: Strong pungent odor
pH: 3.65
DENSITY: 1.134 g/ml
VISCOSITY(Centistokes): 3.65 @ 20°C; 2.44 @ 40°C
FLAMMABILITY (°C): > 100°C

10. STABILITY AND REACTIVITY

GENERAL: Stable under normal use and storage conditions. Store above 32°F (0°C).
INCOMPATIBLE MATERIALS: 10% potassium permanganate solution and iron powder
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride; possible trace amounts of phosgene, nitrogen oxides, ammonia and other toxic and noxious fumes.
HAZARDOUS POLYMERIZATION: Material is not known to polymerize

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral	LD_{50} (Rat): 283 mg/kg (female rat)
Dermal	LD_{50} (Rat): >2000 mg/kg
Inhalation	LC_{50} (Rat): 0.0006 mg/L (4 hours)
Eye Irritation	Moderately irritating (Rabbit)
Dermal Irritation	Slightly irritating (Rabbit)
Dermal Sensitization	Not a contact sensitizer

The studies reported below were carried out with the active ingredient, paraquat dichloride.
CHRONIC TOXICITY:
Rodent studies showed signs of irritation in 21-day dermal studies. In a 2.5 year chronic study, rats showed evidence of cataracts, body weight reduction and lung effects (alveolar macrophage infiltration) at 75ppm and above. A 90-day dog diet study showed evidence of lung effects leading to alveolar collapse and death at 3 mg/kg/day. Chronic pneumonitis was seen in a 1-year dog study at 0.93 mg/kg/day and above.

CARCINOGENICITY:
No evidence in the rat or mouse.
REPRODUCTION TOXICITY:
A 3-generation reproduction study showed no evidence of fertility or reproductive effects at doses below that causing maternal toxicity. Reproductive NOEL was above 7.5 mg/kg/day, the highest dose level.
TARGET ORGANS: Lung, Kidney.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is toxic to wildlife. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.
Parazone 3SL is a contact herbicide that desiccates all green plant tissue. Paraquat dichloride, the active ingredient in this product, is toxic to nontarget crops and plants if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local and state laws, regulations, guidelines, and spray drift information contained in the "Directions for Use" section of the product labeling for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial applications during periods of thermal inversion.

ECO-ACUTE TOXICITY:

Rainbow trout 96-hour LC50:	26 mg/L
Mirror carp 96-hour LC50:	135 mg/L
Daphnia magna 48-hour LC50:	6.1 mg/L
Bobwhite quail LD50:	175 mg/kg
Mallard duck LD50:	199 mg/kg
Bobwhite quail LC50:	981 ppm
Japanese quail LC50:	970 ppm
Mallard duck LC50:	4,048 ppm

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
UN 2922, Corrosive liquids, toxic, n.o.s. (paraquat dichloride), 8 (6.1), PG III

INTERNATIONAL TRANSPORTATION
IMO (vessel): UN 2922, Corrosive liquids, toxic, n.o.s. (paraquat dichloride), 8 (6.1), PG III

IATA (air): UN 2922, Corrosive liquids, toxic, n.o.s. (paraquat dichloride), 8 (6.1), PG III

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302/304:	Paraquat dichloride: RQ = 10 lbs (2.4 gallons of product)
Section 311/312:	Acute Health Hazard Chronic Health Hazard
Section 313 chemical(s):	Paraquat dichloride (43.8%) CAS #: 1910-42-5

CA PROPOSITION 65: Not applicable.

CERCLA REPORTABLE QUANTITY (RQ): Not applicable

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. Paraquat dichloride (Corrosive D002).

TSCA: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

HAZARD RATINGS:	**NFPA**	**HMIS**		
			0	LEAST
HEALTH:	4	3	1	SLIGHT
FLAMMABILITY:	0	0	2	MODERATE
REACTIVITY:	0	0	3	HIGH
			4	SEVERE

MSDS DATE: 8-5-08. Supercedes version dated 12-21-06. Changes made to Sections 1, 4, 13, 14 and 15.

The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.