1. IDENTIFICATION

Product Identifier
Product Name
Parazone 3SL

Other means of identification
SDS # MANA-006
Registration Number(s)
EPA Reg. No. 66222-130
UN/ID No
UN2922

Recommended use of the chemical and restrictions on use
Recommended Use EPA registered pesticide.

Details of the supplier of the safety data sheet
Manufacturer Address
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
1-919-256-9300

Emergency Telephone Number
Emergency Telephone (24 hr) 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 PROSAR:
1-877-250-9291

2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency 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-EPA registered chemicals. Please see Section 15 for additional EPA information.

Appearance Dark green liquid Physical State Liquid Odor Strong Pungent

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 1</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1, Sub-category C</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Signal Word
Danger
Hazard Statements
Toxic if swallowed
Fatal if inhaled
Causes severe skin burns and eye damage
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection

Precautionary Statements - Response
Immediately call a poison center or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a poison center or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Call a poison center or doctor/physician if you feel unwell
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a poison center or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Do not induce vomiting

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Hazards
Very toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraquat</td>
<td>1910-42-5</td>
<td>42.49 - 45.11</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**
4. FIRST-AID MEASURES

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
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a poison center or doctor/physician if you feel unwell.

Inhalation
If inhaled remove to fresh air. Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Immediately call a physician.

Ingestion
Immediately call a poison center or doctor/physician. DO NOT induce vomiting. If conscious, drink 8-10 oz. of water promptly. Never give anything by mouth to an unconscious person. Obtain medical attention. Do not induce vomiting unless directed by medical personnel.

Most important symptoms and effects

Symptoms
Causes severe skin burns and eye damage. Will irritate mucous membranes. May cause drowsiness or dizziness. May cause skin redness, irritation or swelling. Ingestion may cause severe burns to mouth, throat or stomach.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically. Consider: gastric lavage with protected airway, administration of activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO2). Foam or dry chemical systems are preferred to prevent environmental damage from excessive water runoff.

Unsuitable Extinguishing Media
Not determined.

Specific Hazards Arising from the Chemical
Toxic fumes may be given off when material is exposed to fire.

Hazardous Combustion Products

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. Evacuate area of unprotected personnel. Remain upwind of fire to avoid hazardous vapors and decomposition products. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
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.

**Environmental Precautions**  
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

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

**Methods for Clean-Up**  
For small spills, absorb with sand, clay, or other inert absorbent. Place in appropriate containers for disposal. For large spills: recover free product. Dike for later disposal. Absorb with inert material, and then place in suitable container for chemical waste.

7. HANDLING AND STORAGE

Precautions for safe handling

**Advice on Safe Handling**  
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

**Storage Conditions**  
Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Store away from incompatible materials. Protect from excessive heat. Store locked up. Keep/store only in original container. Do not transport or store below 0 C/32 F.

**Incompatible Materials**  
10% permanganate solutions and iron powder.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraquat 1910-42-5</td>
<td>-</td>
<td>TWA: 0.5 mg/m³ respirable dust (vacated) TWA: 0.1 mg/m³ respirable dust Paraquat (vacated) S* Paraquat S*</td>
<td>IDLH: 1 mg/m³</td>
</tr>
</tbody>
</table>

**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.
Individual protection measures, such as personal protective equipment

Eye/Face Protection
Use splash goggles or face shield when contact may occur.

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 sleeve shirt, trousers, and safety shoes.

Respiratory Protection
Ensure adequate ventilation, especially in confined areas. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate.

General Hygiene Considerations
Wash hands before eating, drinking, smoking and using the toilet. Remove contaminated clothing promptly and wash thoroughly before reused. 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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td>Odor</td>
</tr>
<tr>
<td>Appearance</td>
<td>Dark green liquid</td>
<td>Odor Threshold</td>
</tr>
<tr>
<td>Color</td>
<td>Dark green</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>3.0 - 4.0</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100 °C / &gt; 212 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>&gt; 625 °C / 1157 °F</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>3.65 @ 20°C; 2.44 @ 40°C</td>
<td>centistokes</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Bulk Density</td>
<td>1.135 lb/gal</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Not known to occur.
Conditions to Avoid
Elevated temperatures. Avoid temperatures below 0°C/ 32°F.

Incompatible Materials
10% permanganate solutions and iron powder.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.
Skin Contact Causes severe skin burns.
Inhalation Fatal if inhaled.
Ingestion Toxic if swallowed.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraquat 1910-42-5</td>
<td>= 57 mg/kg (Rat)</td>
<td>= 80 mg/kg (Rat) = 325 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

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

Carcinogenicity Not classifiable as a human carcinogen.

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Product Information (Numerical measures of toxicity)
Acute Oral LD50 (Rat): 238 mg/kg
Acute Dermal LD50 (Rabbit): >2,000 mg/kg
Acute Inhalation LC50 (Rat): >0.0006 mg/L (4-hr)
Eye Irritation: Moderately irritating.
Dermal Irritation: Slightly irritating.
Dermal Sensitization: Not a contact sensitizer.
12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects. 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 non-target 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.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraquat</td>
<td>1910-42-5</td>
<td>15: 96 h Cyprinus carpio mg/L LC50 static 8.5 - 19: 96 h Lepomis macrochirus mg/L LC50 static 11.0 - 19.0: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
<td>EC50 = 967 mg/L 5 min</td>
<td>9.1 - 12.2: 48 h Daphnia magna mg/L EC50 Static</td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined.

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinse 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 Hazardous Waste representative at the nearest EPA regional office. Never place any unused product down an indoor or outdoor drain. Do not contaminate water, food or feed by disposal.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.
14. TRANSPORT INFORMATION

**DOT**
- UN/ID No: UN2922
- Proper Shipping Name: Corrosive liquid, toxic, n.o.s. (Paraquat dichloride)
- Hazard Class: 8
- Subsidiary Hazard Class: 6.1
- Packing Group: III

**IATA**
- UN/ID No: UN2922
- Proper Shipping Name: Corrosive liquid, toxic, n.o.s. (Paraquat dichloride)
- Hazard Class: 8
- Subsidiary Hazard Class: 6.1
- Packing Group: III

**IMDG**
- UN/ID No: UN2922
- Proper Shipping Name: Corrosive liquid, toxic, n.o.s. (Paraquat dichloride)
- Hazard Class: 8
- Subsidiary Hazard Class: 6.1
- Packing Group: III

15. REGULATORY INFORMATION

**International Inventories**
- **TSCA**: All ingredients are listed or exempt from listing on Chemical Substance Inventory

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

**US Federal Regulations**

**CERCLA**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parquat 1910-42-5</td>
<td></td>
<td></td>
<td>10 lb.</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**

- Acute Health Hazard: Yes
- Chronic Health Hazard: Yes
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

**SARA 313**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parquat - 1910-42-5</td>
<td>1910-42-5</td>
<td>42.49 - 45.11</td>
<td>1.0</td>
</tr>
</tbody>
</table>
US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraquat 1910-42-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

EPA Pesticide Registration Number 66222-130

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**

Signal Word: Danger

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

**Difference between SDS and EPA pesticide label**

<table>
<thead>
<tr>
<th></th>
<th>EPA</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal Word</strong></td>
<td>Danger</td>
<td>Danger</td>
</tr>
<tr>
<td>Acute toxicity - Oral</td>
<td>May be fatal if swallowed</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Harmful if absorbed through skin</td>
<td>N/A</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Fatal if inhaled</td>
<td>Fatal if inhaled</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Prolonged contact can irritate skin</td>
<td>Causes severe skin burns</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Causes irreversible eye damage</td>
<td>Causes severe eye damage</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Mucosal irritation or nose bleeds may occur</td>
<td>May cause respiratory irritation. May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>N/A</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
<th>See section 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td></td>
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</table>

Issue Date: 24-May-2013
Revision Date: 16-Oct-2015
Revision Note: Updated format from 02-Jun-2014

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 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